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Winter 2001

Medical Alumni BULLETIN

School of Medicine, University of North Carolina at Chapel Hill

Fetal Surgery at UNC: A Medical Milestone

Dean's Page

In November 2000, the UNC Board of Trustees approved proposals for tuition increases from the Schools of Medicine, Business, Law, Pharmacy, and Dentistry which would be returned to these professional schools to fund improvements in their respective educational programs. These proposals have been endorsed by UNC-Chapel Hill Chancellor James Moeser and University System President Molly Broad. It is expected that if approved by the University System Board of Governors in February 2001, they will be reviewed by the legislature and would become effective Fall 2001.

I heard positive responses about the implications of a tuition increase in my discussions with alumni, students and their families, and with my faculty advisory committee. I have asked Cheryl McCartney, MD, Executive Associate Dean for Medical Education and the author of our School's proposal to summarize it for you here.

Jeffrey L. Houpt

Jeffrey L. Houpt, MD
Dean, School of Medicine

At $3,220, our medical school's in-state tuition is second lowest in the country. Public peer institutions such as the Universities of California, Michigan, Washington, Colorado and Alabama charge in-state tuitions ranging from $9,000 to $18,000. Our request to the Board of Governors was to increase in-state tuition to $7,720, phased in by $1,500 per year over three years. We project that even with this increase, our tuition will still be among the ten lowest tuitions nationwide. Out-of-state tuition would rise from the current level of $24,112 to $27,112 similarly phased in over three years by $1,000 per year. In order to protect access to medical education for all qualified North Carolina resident applicants, 50 percent of the revenue from the increase would be dedicated to scholarships for in-state students with demonstrated financial need. We are committed to ensuring access to underrepresented and disadvantaged students. Currently enrolled students would not be affected by the tuition hikes.

The Accreditation Standards of the Liaison Committee on Medical Education (LCME) recognize that "the substantial cost of conducting an accredited educational program leading to the MD degree should be supported from diverse sources, including income from tuition, endowments, earnings by the faculty, parent university, annual gifts, grants from organizations and individuals, and appropriations from government."

The cost of educating an individual medical student is estimated to be between $70,000 and $100,000 per year, and is unlikely to decline. However, we face funding issues similar to medical schools across the country that are experiencing reductions in key sources of support such as reimbursement for faculty's clinical work. Although there is national concern about rising tuitions and the resulting rise in indebtedness of graduating medical students, studies show that physicians' eventual earning power has been sufficient to repay their educational debts early in their professional careers. Our final decision to propose a tuition increase resulted from our motivation to sustain excellence in our educational program. New developments in science, societal needs, and physician practice patterns demand our investment in curriculum development and teaching innovations.

By many measures, the UNC School of Medicine is a national leader. Our 1999 research funding from the National Institutes of Health ranked 15th overall and 5th among public medical schools. In April 2000, a *U.S. News and World Report* survey ranked UNC 23rd among schools of medicine, 8th in primary care. Our family medicine program was 2nd in the nation and our rural medicine program ranked 4th.

The 1997 LCME site surveyors recognized the "efforts of a dedicated and talented administrative staff and the commitment of a faculty dedicated to teaching." However, they criticized our "traditional curriculum" which remains "departmentally based, lecture intensive, and limited in time for active learning in the first two years." Among the remedies they suggested were increased emphasis on small group problem-solving learning techniques and expansion of the use of electronic educational technology. These improvements would require more faculty time and faculty development than the current curriculum as well as investments in redesign of teaching spaces, and new and upgraded scientific equipment and technology.

With the recent approval of the $3.1 billion bond issue to fund improvements in the 16-campus University of North Carolina system, the School of Medicine can now afford to plan major renovations of our teaching spaces, including Berryhill Hall which has not been substantially changed in 30 years. The School of Medicine portion of the Carolina First Campaign has earmarked $50 million in private gifts for technology infrastructure, faculty development, student support, professorships, and scholarships.

Until recently, tuition paid by students in the UNC system was sent to the state's general fund, but the new tuition revenues will be returned directly to our students in improvements to their educational experience.

Medical Alumni BULLETIN

School of Medicine, University of North Carolina at Chapel Hill

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On the Cover: Surgeons at UNC Hospitals perform North Carolina's first in utero surgery on a fetus. Nancy Chescheir, MD, left center, leads the surgical team. *Photo by Jay Mangum.*

Hubbard Program Fosters

By Katie Macdonald

Classmates and instructors gather before a patient visit. Standing from left are: Malaz Boustani, MD, geriatric fellow; Greg Simpson, Florence Soltys, MSW. Sitting from left are: Melinda Snider, Cherie Rosemond, MS, PT, Nancy Green-Knepper, Contina Bell.

In an ideal health care system, all caregivers would work together for the good of the patient. No one job would be considered more important or more respected than the next, and each individual, whether they are a doctor, nurse, social worker or pharmacist, would understand the value of the other's contribution to the enormous task of providing health care to sick people.

Such were the intentions of Elizabeth T. and William N. Hubbard, Jr., MD, who in the mid-80's started a fund administered by The Medical Foundation of North Carolina, Inc., in support of programs at UNC geared toward research, study and the demonstration of collaborative clinical practice by health-related professions.

In a letter he wrote in September 1986 to then Dean of the School of Medicine, Stuart Bondurant, MD, Hubbard stated his intentions and the conditions for the fund.

"Because a common concern for the well-being of the person served is the most important unifying commitment of the several health-related professions, collaboration in clinical practice should have patient benefit as its principal organizing consideration," he wrote. "The unique integrity of the individual person being served and the dynamic quality of the varieties of opportunities open to each health professional for contributing to improved human well-being suggest the essentiality of collaboration among each of the involved health professionals in both episodic and extended care."

Hubbard, former dean of the University of Michigan School of Medicine, knows all too well the reality of traditional health care, where hierarchy, myths, stereotypes and miscommunication sometime hinder the delivery of optimum patient care. The agendas of physicians and nurses clash at times; physical and occupational therapists are often not given the respect for their jobs they deserve; pharmacists are not expected to interact with patients and social workers can be left out of the loop entirely. If only each profession understood the indispensable role all health-related fields play in patient care. Would it be too much to ask for everyone involved to know the roles of each health care profession, how they interact and how to utilize them to help the patient?

Cherie Rosemond, MS, PT and Florence Soltys, MSW of the Program on Aging, have created a project, funded by Hubbard, that embodies Hubbard's original intentions for collaborative practice among health-related professions. Through a special, faculty-initiated selection process, five students, a resident from the department of family medicine, a pharmacist, a social worker, an occupational therapist and a nurse praticitioner join as members of a team devoted to caring for frail older adults.

"We concentrate on geriatrics because the problems for the elderly are often complex and require the expertise of many disciplines to be adequately addressed," said Rosemond, who has served on the faculty of UNC's physical therapy program for the last eight years.

Focusing on the elderly also fulfills another of Hubbard's intentions for the fund, which was to allocate money to educational projects that sought to help the poor, the very young or the elderly. "The people in these groups are the most likely to have measurable benefits from collaborative practice," Hubbard wrote in his letter to Bondurant.

The Program on Aging, under the leadership of Jan Busby-Whitehead, MD, has received funding from the Hubbard family

Collaboration Among Students

since 1997 for their project, known as the Hubbard Program. So far the project has managed to secure funds by conscientiously following Hubbard's specific guidelines, which include creating well-designed assessment and outcome measures that can definitively show the project's effectiveness. "We have designed a home call service that addresses the concerns of the patient, their family and the referring provider," said Rosemond.

The team also fulfills another of Hubbard's intentions, which was to share the responsibility of being a team leader among the group of students. When they meet one afternoon-a-week at Carol Woods, a retirement community in Chapel Hill, one of the team members, through a weekly rotation process, presents the patient the group plans to visit that day. The team leader for the week also is responsible for follow-up communication with the patient. To Hubbard's insistence, the project does not function as a simple hierarchy, but is, as he stated, "capable of shifting the identity of the lead clinician so that coordination of efforts by the health professionals is preserved through shared information and agreed protocols of individual practitioner responsibility."

Often the team's discussions about patients they have seen, or the patient they present that day, break off into frustrations about the health care system and social security's impact on the elderly.

"The way the system is now is crazy," Soltys commented at one of the recent meetings. "It maximizes isolation for the elderly."

Because many of their patients are isolated from the community and have an immediate need of medical care, the team of seven travels as far as Siler City and Pittsboro to treat patients.

"We get to spend more time on one patient and really focus on their medical and social problems," said team member Greg Simpson, who is studying to be a family nurse practioner. "I love how the team comes together to be the patient's advocate."

Pharmacy student Nancy Green-Knepper agreed, "We take more into account when we consider the patient's circumstances. We look at their social situation and life history and because we are a team of different medical professions, we get different perspectives that are helpful to share."

At one meeting, the team reviews the medical and social history of Gerry Gorley, an 89-year-old woman living alone at Carol Woods. Gorley has never been married, but owns a small dog, Tammy, whom she adores but who also is becoming harder to take care of as Gorley's physical limitations increase.

She has had back trouble most of her life and had surgery when she was in her early twenties that fused six vertebrae. Her legs ache and she is slowly losing the strength and energy that once epitomized her active life. As a young woman, Gorley loved to go camping and horseback riding. She also moved around a lot, living in places such as Sante Fe, Kansas, Denver, and Chicago.

Gorley moved to Carol Woods in March 1992 and has no living relatives. She gave up a home with a yard for her one-bedroom apartment in the retirement community, but has a nice view of the trees and woods that color the landscape during the changing seasons.

"God's gift of life can be seen outside my window and it reminds me that it is a blessing just to be here on earth," Gorley remarked to the team, gathered on couches, chairs and the floor to talk to her and listen to her story. On a typical day, Gorley wakes up at 8 a.m., meditates and counts her blessings that she is still alive. Her days are usually filled with writing letters, calling friends and taking time to view the outdoors.

The team spends most of their time with Gorley listening to her daily routines and the stories of her young adulthood. Later, during their meeting, the team will assess Gorley's health and afterward devise a written follow-up plan, including recommendations from each team member on everything from medication to social activities. Both Gorley and her doctor will review the team's advice, which is designed to improve the patient's health both physically and emotionally.

"The interaction of the group really strengthens your own discipline," said Contina Bell, a social work student. "When I'm out practicing for real, I won't have the team with me. Therefore, this project is a good opportunity to learn about other medical fields and how we can work together for the good of the patient."

Knepper added, "Now when I see a patient, I think, what would a physical therapist do? A social worker? I've been spoiled by this group and when I go home from our meetings, I think, what is practice going to be like without Cherie or Florence and the team members?"

For the last three years, Rosemond and Soltys have given students the opportunity to know and understand the responsibilities of other healthcare professions. They have also instilled in their students the vital importance of geriatric medicine to our ever-growing aging society.

"When your taking care of a patient by yourself, you take for granted what needs to be done and what you need to know," said Simpson. "But this experience has been great in debunking the stereotypes I may have had about others in health care, and it's helped me respect other health care professions." □

Mending

By Eileen Barton

Most people think of it as an "adult illness," yet heart disease strikes one out of 100 American children born every year. Other than asthma, it affects more children than any other childhood disease and holds a dubious first place in birth defects.

At the North Carolina Children's Heart Center in Chapel Hill, multiple health care specialists collaborate to care for children with heart disease. Pediatric cardiology, pediatric cardiothoracic surgery, pediatric cardiac anesthesia, pediatric critical care medicine and social services interact dynamically to provide a seamless spectrum of care for children with heart disease and their families.

Heart disease touched the Stephen Buchanon family of Greensboro when doctors diagnosed a condition known as Tetrology of Fallot in their three-day-old son, Logan. Babies with this condition have pulmonary artery, heart valve and chamber defects that reduce oxygenation of the blood. Most babies with this defect have open-heart surgery before they enter school. Logan was four-and-a-half months old when he came to UNC for surgery.

Logan's mother, Allison, recalls her family's experiences leading up to, and since, that unforgettable day. As she described the journey from diagnosis through rehabilitation, Logan's gleeful sounds were clearly audible in the background. "He's almost too healthy! He's a wild man!" she exclaimed.

Besides the events surrounding Logan's condition, Mrs. Buchanon was struck by the tremendous teamwork of everyone involved. "I am so impressed with the way in which various doctors from different areas came together for him," she said. "They worked side-by-side to make him well; they played a huge role in his treatment."

One UNC physician who helps ensure a focus on patient care is G. William "Bill" Henry, MD, professor of pediatrics and chief of pediatric cardiology. As director of the N.C. Children's Heart Center, Henry brings together the diverse medical, surgical and nursing specialties necessary to offer integrated — yet individualized — patient care.

G. William "Bill" Henry, MD, professor of pediatrics and chief of pediatric cardiology

"When we say 'children's heart disease,' we are talking about specialized care that encompasses many different activities occurring in diverse locations," Henry said. "Things are happening concurrently inside and outside the actual hospital setting. An anesthesiologist and surgeon are busy in the operating room, cardiologists are busy in the cardiac catheterization laboratory, critical care physicians are in the intensive care unit and cardiologists are staffing a variety of outpatient clinics. We are talking about different disciplines contributing in an integrated way to the welfare of the child. I have the pleasure to work with superb physicians who are simply the best at what they do."

And it's not all happening in Chapel Hill. Henry also presides over a network of five satellite pediatric cardiology clinics in Wilmington, Raleigh, Greensboro, Fayetteville and Rutherfordton. "The heart center reaches out to the community," he said. "We go out where there is a need, providing specialty care locally."

The specialty clinics are conveniently situated throughout the state so that they are accessible to families of children with heart disease. If the family's doctor examines the child and recommends a cardiac specialist, he can refer the child to a clinic within a reasonable proximity. At UNC, diagnostic functions are performed including assessment by history and physical examination, electrocardiography, and cross section/color flow echocardiography, a diagnostic test in which a probe is placed on the chest while ultrasound waves detect the condition of the patient's heart.

A remote telemedicine network connecting newborn intensive care units throughout the state allows this sophisticated procedure to be interpreted by pediatric cardiologists in Chapel Hill using a videoconferencing link without having to move the child.

If a child requires more sophisticated care, he comes to UNC, where both outpatient and inpatient care is provided. Exercise testing, transesophageal echocardiography, cardiac magnetic resonance imaging, cardiac cinetomography, cardiac catheterization and a variety of therapeutic interventions are among the specialized services provided.

The N.C. Children's Heart Center encompasses a myriad of disparate but equally important specialties. Annually, more than 5,000 patients are treated, about 200 operations, 200 cardiac catheterizations and more than 5,000 echocardiograms are performed.

"This center is one excellent example of the extraordinary services we are able to provide to children," says Dan Lehman, administrative director for cardiovascular and wellness services.

Lehman leads a management team responsible for developing cardiovascular service lines for the heart center. Currently, he is involved in plans to house pediatric diagnostic functions including treadmill tests, echocardiograms and EKGs in the new N.C. Children's Hospital which opens later this year.

Since patients and their families continually require these diagnostic and support services as part of their treatment, "having the equipment and a team of counselors and clinicians together will lend tremendous support to families," he said. "They will have one

Small Hearts

place, with which they can identify and relate. The N.C. Children's Hospital will allow our heart team to expand our highly-specialized care to ensure the children of this state receive the highest standard of care available anywhere."

Surgery is another vital part of the pediatric heart care package. What distinguishes the N.C. Children's Heart Center from the rest, explains Michael Mill, MD, director of the cardiac transplant program, is that "virtually anything being done today in pediatric heart care can be performed here. Because of the considerable advances that have been made in the field, families now face very promising prognoses. We help people accept that their child has heart disease, and that there is a way out of this. Yes, the prospect of surgery can be frightening, but it is often a critical step along the pathway to health."

Another valued contributor to UNC's commitment to healthy young hearts is a person described by most parents as a "gift." Her name is Maggie Morris, and the extraordinary service she provides as coordinator of the Carolina Parent Network is long remembered by the families she meets.

"We are a pre-and post-operative parent support, information and education network," she explained. "When a child is diagnosed with a heart problem, I call that family, discuss with them their particular situation and tell them how we might be able to help. I offer to put them in touch with another family that has been through the same experience or one very similar." Because the network shares information about heart issues, families feel empowered to make informed choices. Morris has a database of more than 1,000 families. When she learns about a new patient, she can zero in on specific geographic areas to find another family in a similar situation. The network offers practical education, comfort and an opportunity for families to meet other like themselves.

Susan Stringer of Jamestown, NC, has been so touched that she now volunteers at the Children's Heart Center. The mother of four children ages from 4 to 22, Stringer experienced first hand the trauma of heart illness when her youngest daughter, Monica, was diagnosed with coarctation, or narrowing, of the aorta.

Logan Buchanon, a healthy patient of North Carolina Children's Heart Center.

Five-year-old, Monica Stringer, also receives treatment at the North Carolina Children's Heart Center.

"I knew something was wrong when she had the sniffles at six weeks of age," Stringer said. "I was nursing her and she was so protected, too young to have these symptoms. Her weight dropped, and she was dehydrated. We took her to the hospital and they discovered she had RSV, a virus. I subsequently learned that if an infant is hospitalized with this, there is usually an underlying heart or lung problem. Her lungs were so wet the doctors could not pick up sounds from her heart."

Finally, Stringer took her daughter to Henry at UNC, where the baby underwent an echocardiogram that detected serious heart problems. She was scheduled for surgery at five months of age, weighing just 12 pounds.

"Handing my baby over to the pediatric anesthesiologist was the toughest thing I've ever done," Stringer said. "She was in pediatric intensive care for 10 days. We had to make lots of phone calls and ask for help from family and friends, since our other children were at home. Following the surgery, we had to keep her isolated. But everyone on UNC Hospitals' staff was outstanding, and ever since the operation we've had excellent reports."

Monica Stringer is now five years old. Perhaps the finest testimony to the N.C. Children's Heart Center excellence is captured by her words every time she travels to the clinic for her twice yearly checkup: "They fixed my heart." □

UNC Takes On the Delicate,

By Karen Stinneford

Physicians at UNC Hospitals surgically treated an unborn baby for a debilitating birth defect called spina bifida in December.

In doing so, the hospital affiliated with the University of North Carolina at Chapel Hill School of Medicine becomes only the fourth in the country to offer the highly specialized surgery to expectant parents whose unborn babies have been diagnosed as having spina bifida. Others are The Children's Hospital of Philadelphia, the University of California at San Francisco Medical Center and Vanderbilt University Medical Center in Nashville, Tenn.

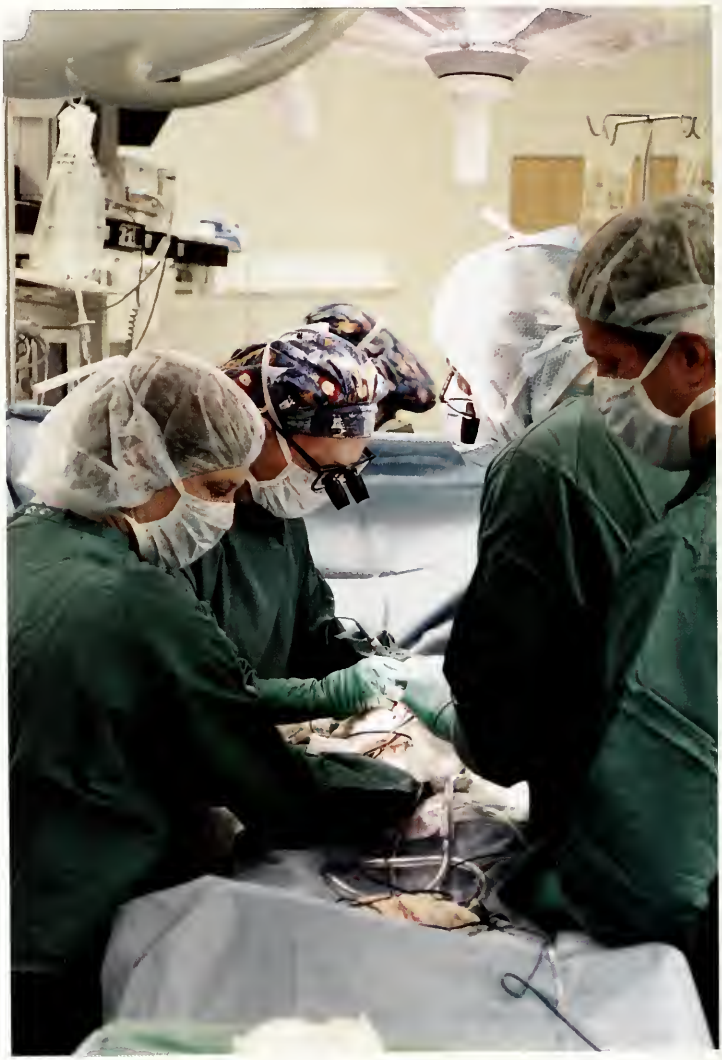
The mother, who is not being identified, and her unborn baby are doing well. UNC physicians hope to deliver her baby by Caesarean section in March.

Spina bifida is the most common neurological defect in the United States, occurring once in every 1,500 births. North Carolina has the unfortunate distinction of leading the nation in the incidence of spina bifida – one of every 500 North Carolina babies is born with it.

Babies with spina bifida have an opening in their spine. Although it is not a fatal disorder, spina bifida can be severely debilitating. Children can have lower limb weakness or paralysis, sensory loss, learning disabilities and bladder or bowel incontinence.

Most of the babies also experience something called a Chiari II malformation, which occurs when the hindbrain "slips" backward in the skull onto the spinal column. This makes them prone to hydrocephalus – a pooling of spinal fluid on the brain – for which doctors must surgically implant a "shunt" to drain the excess fluid. Shunts are notorious for failing or becoming infected.

Currently, physicians operate on babies with spina bifida shortly after birth to close the opening in their spine. By then, the dam-



During the surgery, physicians open the mother's abdomen and partially remove her uterus.

Risky Challenges of Fetal Surgery

age from the Chiari II malformation has been done, said Nancy Chescheir, MD, professor of obstetrics and gynecology, director of the Fetal Therapy and Surgery Program and head of the surgical team.

"There's a good deal of evidence that shows that if we operate on spina bifida babies midway through the pregnancy — rather than waiting for them to be born — we can halt or even reverse the damage caused by the Chiari II malformation," Chescheir said.

"About half the babies operated on in utero won't need a shunt, as compared to some 80 to 90 percent of all babies born with spina bifida. That's good news for the babies, and good news for their parents," she said during a news conference.

During the surgery, physicians open the mother's abdomen and partially remove her uterus. They remove the amniotic fluid that cushions the unborn baby in the uterus. They turn the fetus to expose the opening on its spinal cord and sew the opening shut. Physicians stitch the uterus shut, replace the amniotic fluid, return the uterus to the abdomen and stitch it shut. The entire operation takes about two hours.

UNC Hospitals is one of four in the U.S. offering this highly specialized surgery.

Spina bifida is among a group of birth defects called neural tube defects that affect the backbone and brain. Every fetus's spine is open when it first forms, but that opening normally closes around the 29th day after conception. In spina bifida, however, the opening never closes completely.

Scientists aren't sure exactly what causes spina bifida, although they believe a combination of genetic and environmental factors are to blame.

Researchers do know, however, that folic acid taken before conception dramatically decreases the risk of neural tube defects like spina bifida. Because many pregnancies are unplanned, the federal government recommends that all women of child-bearing age — regardless of whether they want to become pregnant — consume 0.4 milligrams of folate acid daily through food or vitamin supplements.

The mother is being cared for through the UNC Center for Maternal and Infant Health, a collaborative initiative of the School of Medicine's departments of obstetrics and gynecology and pediatrics, and the North Carolina Women's and Children's hospitals. (The new hospitals open later this year.) The center is dedicated to improving the health of all women and infants in the state through clinical services, outreach programs, education and research.

In caring for its patients, the center assembles a wide range of medical expertise in one location and then carefully directs the delivery of treatment to ensure the best care possible. By offering coordinated services for pregnant women and their infants with serious medical conditions, the center provides diagnosis, consultation and expert care to avoid or lessen the severity of birth complications.

The first center of its kind in the country, the UNC Center for Maternal and Infant Health is creating a model system of perinatal care. □

Tim Weiner, MD, pediatric surgeon, watches a monitor as colleagues perform the surgery in an adjacent operating room.

School Launches Medical

$7 Million Goal Earmarked for

By Laura Ertel

With the cost of a medical education rising, the UNC School of Medicine is looking to its alumni to help sustain its reputation as one of the top medical schools in the nation.

In February 2000, the School launched the Medical Alumni Endowment Campaign to raise at least $7 million to provide perpetual support for scholarships, professorships, and research. Already, alumni have committed nearly $2 million toward the two-year campaign.

Based on the growing tide of alumni giving over the past decade, Jane McNeer, Vice President of The Medical Foundation of North Carolina, Inc., is confident that the School is looking to the right people for support. "Today, only 17 percent of the School's nearly half-billion dollar budget comes from the State – down from 21 percent in 1990," McNeer explains.

"As State appropriations have lagged, our alumni have really stepped up. Since 1989, alumni giving has jumped from just 9 percent participation in 1989 to 49 percent today, with almost $2.5 million last fiscal year in gifts to the Loyalty Fund, endowment and other programs. That level of participation rivals any public or private medical school in the country."

Campaign co-chair George Cox, MD '66, believes his fellow alumni are up to this newest challenge. "Everyone I've talked to understands the importance of maintaining our level of annual giving while building the School of Medicine's endowment," he says. As alumni, the value of our medical degrees is in direct proportion to the School's reputation today. This is a wonderful opportunity to give back to an institution that has given us so much while also increasing the value of our degrees." This is also an opportunity to name an endowment in perpetuity.

George Cox, MD '66, center, and the Campaign Steering Committee discuss the work ahead.

School's Endowment Small Compared to Peers

Today's UNC School of Medicine ranks among the top five public medical schools in the nation and among the top 25 overall. The School has earned its reputation for excellence in spite of an endowment which, at $128 million, pales in comparison to the endowments of its peer institutions. Among the five public medical schools in the top 25 nationally, UCLA has an endowment of $603 million; Michigan, $302 million; Washington, $256 million and UC-San Francisco, $203 million. The private Duke School of Medicine benefits from an endowment of $581 million.

Because endowment gifts are invested and only a portion of the earnings spent each year, the principal continues to grow over time and provides vital, guaranteed support for the School in perpetuity. It is this certainty that makes a strong endowment so important for any academic institution. Donors can name the fund for themselves or for someone they wish to honor.

"Endowment is a stabilizer during economic down times, a cushion against increasing program costs, and a measure of certainty that allows us to plan for the future," says School of Medicine Dean Jeffery L. Houpt, MD. "Like all medical schools, we realize that our alumni are the ones who best understand and appreciate the value of our institution, so we rely on their support to help us stay at the forefront of medical education."

Medical Education, Tuition Costs Rising

The money raised through the Medical Alumni Endowment Campaign will go toward several priorities that are currently funded through annual contributions to the Loyalty Fund. But with rising education expenses — the actual cost of a medical education now stands at about $100,000 per student each year — neither source of funding can suffice on its own.

The N.C. General Assembly has approved a tuition increase that will take the medical school's tuition from $3,300 (the lowest tu-

Alumni Endowment Campaign

Scholarships, Teaching, and Research

ition of all 125 medical schools in the country) to $8,000 per year over the next three years. Even with this increase, UNC will still be the seventh or eighth least expensive medical school in the nation, a bargain when compared to private schools where annual tuition tops $30,000.

The tuition increase makes building the School's endowment even more pressing, since scholarships will need to cover significantly more tuition for each student. Co-chair Ted Kerner, MD '85, notes that, "with tuition more than doubling, annual unrestricted gifts to the Loyalty Fund which funds 51 full-tuition scholarships simply cannot keep pace. Endowment, supplemented by Loyalty Fund gifts, will provide much of the steady, ongoing support we need to bring outstanding students to UNC. These scholarships are particularly gratifying because they mean so much to students, and the generosity of today's alumni starts a cycle of giving that can benefit our medical students for generations to come."

Campaign Goals

The Medical Alumni Endowment Campaign, which runs through Spring 2002, is part of the University's $1.5 billion Carolina First Campaign. The $7 million campaign seeks to raise:

Scholarships/Merit Awards

A minimum of $5.6 million to endow 51 full in-state tuition scholarships to include both need-based and merit awards, one-year and four-year scholarships and awards for allied health sciences students and for medical students interested in primary care. For many students, these awards make the difference in their decision to enroll at UNC – or in their ability to attend medical school at all. Already, 12 alumni have committed to establish scholarships through this campaign.

Teaching Professorships

A minimum of $1 million total for four three-year teaching professorships that will help the School recruit and retain outstanding medical faculty in an increasingly competitive market. Endowed awards alleviate some of the financial pressure on faculty to see patients, allowing these excellent teachers to focus more of their attention on the classroom.

Research Seed Grants

At least $400,000 total to endow four research seed grants of $2,000 to $5,000 annually in support of promising research by students, house staff, and faculty members.

The Medical Alumni Endowment Campaign accepts current gifts of cash, securities, and real estate as well as planned gifts in the form of bequests, charitable remainder trusts, and several other options. Gifts of tax-deferred retirement plans and life insurance are also encouraged. All gifts and pledges received by June 2006 will count both toward this campaign and the Carolina First Campaign and will receive special recognition. During this campaign, the School will continue to rely on annual gifts to the Loyalty Fund vital support for student programs, scholarships and professorships, publications, and alumni events.

For more information about the Medical Alumni Endowment Campaign or to make a gift or pledge, call Jane McNeer or Mary Ollila at The Medical Foundation of North Carolina, Inc. at (800) 962-2543. □

Campaign Goals at a Glance

	Minimum Total Goal	Minimum Naming Gift	
		Cash	Planned Gift
51 Endowed Scholarships/ Merit Awards	$5,600,000	$100,000	$150,000
Four Teaching Professorships	$1,000,000	$250,000	$300,000
Four Research Seed Grants	$ 400,000	$100,000	$150,000
Total Campaign Goal	**$7,000,000**		
Raised to Date	$1,950,000		

Meet the Medical Alumni Endowment Campaign Steering Committee

Co-Chairs

George Cox '66 — Atlanta, GA
Ted Kerner '85 — Lewisville, NC

Wallace Baird '69	Greensboro, NC	Phil Deaton '66	Greensboro, NC
Dick Boyd '56	Statesville, NC	John Foust '55	Charlotte, NC
Dan Crocker '70	Rocky Mount, NC	Ray Hayworth '62	Knoxville, TN
Fred Dalldorf HS	Chapel Hill, NC	Bob Sevier '66	Greensboro, NC

Highlights of Fall 2000

FY 2000-01 Medical Alumni Loyalty Fund Scholars and Endowment Grant recipients are recognized at Fall Medical Alumni weekend

Left to right, Dean Jeffrey L. Houpt, MD, Clarence M. Miller Jr., MD '44 and J. Charles Jennette, MD '73, Chair and Brinkhous Professor of Pathology

Thomas Koontz, MD '66 (President-Elect MAA, Winston-Salem) and wife Lynne; Paul Viser, MD '84 (President MAA, Clinton)

From right rear: Jane M. McNeer (V.P. Medical Foundation), Dean Jeffrey L. Houpt, MD, Corinne Houpt, George Cox, MD '66 (Atlanta), Vincent Bynum, Milele Kudumu (MS2), H. Wallace Baird, MD '69 (Greensboro), Betty Ann Miller, Clarence M. Miller, Jr., MD '44 (Sewickley, PA), Mary Susan Fulghum, MD '71 (Raleigh).

Medical Alumni Weekend

John W. Foust, MD '55 (National Chair of the Loyalty Fund, Charlotte) addresses the largest ever Fall Medical Alumni weekend banquet.

Some of the Loyalty Fund Associates attending the banquet include: Left to right back row: Paul E. Viser, MD '84 (Clinton), Frederic G. Dalldorf, MD HS (Chapel Hill), Carl S. Phipps, MD '62 (Winston-Salem), Robert S. Jones, MD '54 (Shelby), John M. Herion, MD '83 (Wilmington)
Left to right front row: R. Glenn Butler, BSMTC '76 (Escondido, CA), Ray M. Hayworth, MD '62 (Knoxville, TN), Mary Susan Fulghum, MD '71 (Raleigh), William E. Easterling, Jr., MD '56 (Chapel Hill)

Mark Your Calendar!

Spring Medical Alumni Weekend
April 27-29, 2001

A brochure and specific reunion information will be mailed in February. For updated information visit www.med.unc.edu/alumni

Faculty Notes

Stuart Bondurant, MD, professor of medicine and dean emeritus of the School of Medicine, was recognized by the Institute of Medicine with the David Hall Medal. The organization cited Bondurant for "particularly distinguished leadership" as chair of a study committee and showing "exemplary commitment substantially above and beyond the usual expectations."

Bondurant

Donald T. Forman, MD, professor of pathology and laboratory medicine, received a special recognition award from the American Chemical Society. The award recognizes people who have worked throughout their professional careers to advance the society's professional objectives. Forman has served as a member of the society's Committee on Clinical Chemistry since 1990 and its chair since 1998. At the society's annual meeting, he organized and moderated a symposium on "Animal Models of Gene Diagnosis and Therapy." Forman's committee promotes the practice and profession of clinical chemistry, improve educational programs, boost research and serve both chemists and the public.

Adam Goldstein, MD, assistant professor in family medicine was selected by Prevention Partners of North Carolina as co-recipient of its first inaugural 2000 Physician Excellence Prevention Award. This award recognizes Goldstein's research, education and advocacy efforts on behalf of tobacco use prevention and control both in North Carolina and throughout the nation.

Goldstein

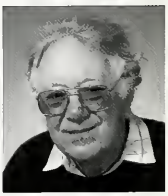
Jack D. Griffith, MD, professor of microbiology and immunology, has been named an Ellison Medical Foundation Senior Scholar. The honor carries an award totaling $900,000 over four years. Griffith is one of 13 distinguished scientists selected from an extremely competitive national field of applicants. In granting these annual awards, the Bethesda, Md.-based foundation said it aims to "create a community of scholars in aging that can foster the development of cutting edge research." Last year, Griffith, and Rockefeller University colleague Titia de Lange reported their discovery that the ends of chromosomes, called telomeres, are tied in firmly knotted loops. The discovery was heralded worldwide as important for gaining insights into cancer and aging.

Irva Hertz-Picciotto, PhD, professor of epidemiology, has been elected president of the International Society for Environmental Epidemiology. Hertz-Picciotto is a founding member of the society and a previous chancellor on its executive board. The society, founded in 1989, has more than 800 members from more than 50 countries. Hertz-Picciotto also has been appointed chair of the Committee to Review the Health Effects in Vietnam Veterans of Exposure to Herbicides. A National Academy of Sciences committee, his group will create and issue a report to the U.S. Congress that may influence the compensation of Vietnam veterans for their health problems.

Merry-K. Moos, MPH, has been recognized by the Eastern Carolina Chapter of the March of Dimes for her dedication to improving the health of mothers and babies in North Carolina. On a national level, Moos serves on the March of Dimes Nursing Advisory Council and has written one of the most frequently-used nursing modules entitled "Preconceptional Health Promotion." She travels across the country working with March of Dimes chapters to educate health care providers about the importance of working with women to make sure they are healthy before they become pregnant. Her involvement with the March of Dimes reaches home to North Carolina where she is a key member of the state Folic Acid Council and a long-time chapter program volunteer.

Moos

Oliver Smithies, PhD, professor of pathology and laboratory medicine, has received the 15th International Okamoto Award from the Japan Vascular Disease Research Foundation for contributions to medical research. The award, one of the most prestigious given in Japan, consists of 1 million yen — about $10,000 — a gold medallion and a certificate. According to the citation, Smithies won the honor for "great achievement in breaking new ground in the hypertensive and arteriosclerotic research



Smithies

field on the basis of molecular genetics." A member of the UNC Lineberger Comprehensive Cancer Center, Smithies has earned many international, national and state awards. Among those were two Gairdner awards, the Alfred P. Sloan Award of the General Motors Foundation, the Ciba Award of the American Heart Association, the Bristol Myers Squibb Award for cardiovascular and metabolic disease research and a North Carolina Award in Science.

In a 1995 profile, the New York Times called Smithies "a scientific phenomenon, a man whose intellectual pace has continued unabated for half a century...who continues to break new scientific ground."

Alan D. Stiles, MD, chair of the department of pediatrics, has been appointed the first Katherine M. Brewer Distinguished Chair of Pediatrics and the Physician-in-Chief for the N.C. Children's Hospital. Stiles is a 1974 UNC graduate and a 1977 graduate of the UNC School of Medicine. He was chief resident in the department of pediatrics at UNC from 1981-82.

Stiles

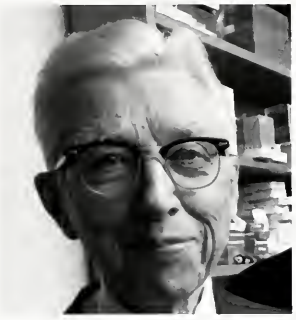
IN REMEMBRANCE

Kenneth M. Brinkhous, MD, who developed the first effective treatment for hemophilia and was the first scientist to receive 50 years of continuous research funding from the National Institutes of Health, died Monday, Dec. 11, 2000. He was 92.

"Dr. Brinkhous was a truly remarkable man, a gentle, soft-spoken scientific and medical giant who pioneered treatment of a terrible disease that afflicted, among others, many of the royal families of Europe," said Jeffrey Houpt, MD, dean of medicine. "Among his almost unbelievable list of accomplishments was growing our pathology department from almost a one-man operation into one of the leading departments of its kind in the world. He will be greatly missed."

"A consummate scientist, Dr. Brinkhous was a source of seminal research on the mechanisms of blood clotting, an inspiring teacher and mentor and a national and international leader who helped to shape biomedical research in his time," said Stuart Bondurant, MD, former medical dean. "His research contributions have saved and improved the lives of tens of thousands of children and adults in North Carolina and around the world."

Emeritus professor of pathology and laboratory medicine at the UNC School of Medicine, Brinkhous was an Iowa native who attended the U.S. Military Academy and received his bachelors degree from Iowa State University of Science and Technology in 1929 and medical degree there in 1932. The University of Iowa appointed him to its faculty in 1932, and he later rose to the rank of Lt. colonel in the Army Medical Corps during World War II.



Kenneth M. Brinkhous, MD

The physician joined UNC as pathology chairman in 1946. He wrote or contributed to more than 450 research papers and books, served on the editorial boards of 18 journals, including the Proceedings of the National Academy of Sciences, and edited four journals.

"Kenneth Brinkhous was widely liked and appreciated on campus," said his friend and colleague John B. Graham, MD, distinguished professor of pathology and laboratory medicine emeritus. "He once said to me that he may not be the smartest man in the world, but no one is willing to work harder. This was demonstrated not only at his own institution, but also in national and international arenas."

"All of the advances made in hemophilia were made on the basis of what was started here in 1946 when Dr. Brinkhous came here," said Harold R. Roberts, MD, Kenan professor of medicine. "Fifty years ago, many hemophiliacs did not survive to adulthood. Today, patients with classic hemophilia can now live a virtually normal life span because of the advances that Dr. Brinkhous made. His research is Nobel Prize caliber."

While at Iowa, Brinkhous discovered that hemophiliacs could not make a blood-clotting factor he named antihemophilic factor and which now is called factor VIII. Although not the diseases cause, lack of the protein results in life-threatening symptoms such as uncontrolled bleeding. At Chapel Hill, he and colleagues explained the genetics underlying disease transmission and showed that hemophilia also occurs in females.

They also developed a test to detect clotting disorders, the partial thromboplastin test, that is still used millions of times a day around the world and showed they could control hemophilia by first replacing Factor VIII through blood plasma. Another breakthrough was learning to purify and concentrate Factor VIII so that it worked far better. Brinkhous also became a world leader in explaining von Willebrands disease, the clotting effects of snake venom and blood clotting leading to stroke and heart attacks.

Among his many honors were the American Association of Pathologists top Gold Headed Cane Award, election to the American Academy of Arts and Sciences, the National Academy of Sciences and the Institute of Medicine and honorary doctorate degrees from Carolina and the University of Chicago. He was named Alumni Distinguished Professor and recipient of the O. Max Gardner Award from the UNC Board of Governors, both in 1961. The university named both its Brinkhous-Bullitt Building and an endowed professorship in his honor. In 1969, he received the North Carolina Award in Science.

Meredith's Vision for

By Katie Macdonald

For those fortunate enough to have 20/20 vision, imagining a world of muted tones or fuzzy images, is difficult. But each day, people are diagnosed with various eye problems that require corrective surgery, the use of glasses or can even cause blindness.

That is why Travis Ashby Meredith, MD, newly-appointed chair of the department of ophthalmology, wants to ensure that his department is a valuable resource for patient referrals, research and teaching of local physicians.

In doing so, Meredith feels ophthalmologists at UNC and beyond will be better equipped to educate people about the causes of vision problems and the new treatments available.

"The issues of eye problems associated with diabetes or macular degeneration, which is often associated with old age, need to be addressed by our medical center," he said. "We must try to get the patient to see the doctor and then it is our responsibility to provide the best possible care."

Born in Welch, W.Va., Meredith grew up with a passion for science and math and thought that passion would lead him into engineering. Instead, Meredith's career path changed direction when he enrolled in a human anatomy and physiology course his senior year of high school. After taking that class, Meredith realized how much he truly enjoyed biology and decided at that point to study medicine.

As an undergraduate at Yale University, however, Meredith unconventionally majored in history. "Yale encouraged undergraduates to do liberal arts," he said. "I had not enjoyed history until I arrived at Yale, but developed a great love for it there."

Meredith's love and devotion to history won him the honor of being named a Nation-

Travis Meredith, MD, chair, Department of Ophthalmology

Ophthalmology is 20/20

al Merit Scholar and proved his dedication to academics and high standards. Those high standards helped Meredith move on to his next academic pursuit as a medical student at Johns Hopkins University, where he received his medical degree.

Meredith chose ophthalmology after examining a patient's eye through a slit lamp, a type of microscope used by ophthalmologists. "It's corny," he said. "But it was the most unbelievable sight to me."

After completing an internship at Columbia Presbyterian Medical Center, Meredith returned to Johns Hopkins for his residency at the Wilmer Institute of Ophthalmology. During his residency, the Navy drafted him to serve in Vietnam. "I was actually encouraged that the Navy drafted me," he recalled. "There was this common knowledge that if you were drafted by the Army or Air Force, you would have to go to some flat place far from civilization. But if the Navy drafted you, you got to float on a boat."

Meredith did none of the above. Instead, he spent his tour of duty in Washington, DC, and after only one year of training, was assigned as an ophthalmologist for the Main Navy Dispensary, where his patients included some of the most famous and infamous politicians of the time.

Prior to his arrival at UNC, Meredith served as a physician and faculty member at some of the most respected academic medical centers in the country, including the Medical College of Wisconsin in Milwaukee and Emory University in Atlanta. He also served as the director of Vitreo-retinal surgery at Johns Hopkins. Most recently, he was a clinical professor of ophthalmology at Washington University School of Medicine in St. Louis. But Meredith made the decision to move east when he learned of the opportunity to teach at UNC.

"From my first visit, I have been very impressed with UNC's medical center," said Meredith. "UNC has high-quality faculty with a strong record of success in attracting research funding. But what makes UNC unique is its collegiality and camaraderie. While many academic medical centers are shrinking because of budgetary constraints, UNC seems vibrant and growing despite these challenges," he said.

> *"We must try to get the patient to see the doctor and then it is our responsibility to provide the best possible care."*

As chairman, Meredith wants to develop and support a strong faculty who can carry out the teaching and research fundamentally important to an academic department. Meredith plans to conduct patient care along with other faculty members. His area of expertise is retinal disease.

Meredith puts a high priority on the treatment of retinal diseases, which account for two of the leading causes of blindness, macular degeneration and diabetic retinopathy. "Macular degeneration could easily be the largest public health problem because it affects so many elderly, the fastest growing population group," he said.

Eye problems caused by diabetes also are of paramount importance. But Meredith is equally dedicated to improving the level of treatment offered by UNC in a number of other areas, including eye disease in premature infants, glaucoma, ocular trauma and neurological disorders of the eye.

"He's very compassionate and down-to-earth," Ricky Bass, the ophthalmology department's business manager, said about Meredith. "He wants to see the department go a long way, and when it comes down to it, he's got a good vision."

Bass describes Meredith's goals as rational and for the good of the department. "He wants to know what's happening here at the medical center and in the community," he said.

Meredith's skills as a physician and professor have not gone unnoticed. His most recent honor came in 1999 when he served as president of the Macular Society, a group devoted to research in retinal disease. Meredith has also belonged to other ophthalmological societies, including the Retina Society, the Vitreous Society and the American Ophthalmological Society. His experience in these organizations and his years spent teaching should provide Meredith with the means to take UNC's ophthalmology department to the next level.

"I feel my major responsibility should be to develop a long range plan for the department working in conjunction with the faculty," he said.

"We want to create a distinct path of development as we grow to fulfill our academic mission." □

News Briefs

Sid Smith, MD, appointed AHA's chief science officer

Sidney C. Smith Jr., MD, professor of medicine and director of the Center for Cardiovascular Science and Medicine at the University of North Carolina at Chapel Hill, has accepted the newly created position of chief science officer for the American Heart Association.

Smith

The role of chief science officer was created to maintain the association's leadership role in cardiovascular and stroke research, as well as oversee the association's key science initiatives and cultivate collaborative partnerships with other organizations and corporations.

Smith will maintain his appointments at UNC, continue to see patients, work with medical students, conduct research and pursue academic projects.

"I will be speaking from the bedside and on behalf of the American Heart Association," Smith said. "Over the years, I have been able to see first-hand the importance of translating research findings to patient-care initiatives. In this new position, I will be able to use my experience to build important partnerships for the association."

Smith has served the American Heart Association as a volunteer for almost three decades. He led the organization as president from 1995 to 1996 and served as a member of the association's board of directors from 1991 to 1997.

Gary Park named chief executive officer of Rex Healthcare

Gary L. Park, chief operating officer of the Moses Cone Health System in Greensboro, has been named chief executive officer of Rex Healthcare. His first day was Jan. 2. Eric B. Munson, president of UNC Hospitals and chief operating officer of UNC Health Care, served as acting CEO at Rex since UNC Health Care acquired the Rex system last April.

"Mr. Park is an accomplished health-care executive who particularly distinguished himself during the merger of the Wesley Long and Moses Cone systems in Greensboro," Munson said.

Park, who was CEO of Wesley Long at the time of the merger, served as chief operating officer of the combined systems during a period of consolidation that's expected to deliver $55 million in merger savings by 2002.

"We are delighted to welcome Mr. Park to Rex and to the UNC Health Care family," said Jeffrey L. Houpt, MD, CEO of UNC Health Care.

In Greensboro, Park, 49, was responsible for the day-to-day operations of a 1,250-bed system which includes three acute-care hospitals, two skilled-nursing facilities and a psychiatric hospital. Prior to serving as CEO of Wesley Long from 1992 to 1997, Park held senior executive positions at hospitals in West Virginia and Florida. Park has held leadership positions in the United Way of Greater Greensboro and the Greensboro Development Corp., and serves on the boards of Hospice of Greensboro and the Greensboro Arts Council. He received his bachelor's and master's of public administration degrees from West Virginia University.

George Sheldon, MD, elected chairman of country's largest academic medicine organization

The head of surgery at the University of North Carolina at Chapel Hill School of Medicine is chairman of the Association of American Medical Colleges, the largest and most respected organization of its kind in the country.

George F. Sheldon, MD, Zack D. Owens distinguished professor of surgery, assumed his new leadership post at the AAMC's annual meeting Oct. 28 in Chicago. Sheldon is an expert in general surgery, trauma care and prevention, burns, oncology and health- care workforce issues who joined the School of Medicine faculty in 1984.

Sheldon

Recently, on behalf of its members, the AAMC has sought legislative relief from the 1997 Balanced Budget Act. The act resulted in Medicare cuts more than double the $110 billion Congress originally intended, and about half of U.S. teaching hospitals are projected to lose money this year. Sheldon has testified several times before Congress about how the act has affected teaching hospitals.

One of Sheldon's goals as AAMC chairman will be to emphasize the importance of clinical research and how it results in tangible new drug and medical therapies for society. The country is experiencing a personnel shortage in the fields of clinical research, so the need to attract more people is critical, he said.

"The National Institutes of Health has identified clinical research as its second biggest national scientific effort after the Human Genome Project," he said. "Well-trained people conducting clinical research is a national need, and the issue becomes more complicated as science becomes more complicated."

Sheldon is the first surgeon who is not a medical school dean since 1879 to serve as chairman of the AAMC. He is one of a handful of surgeons in the past 100 years to serve as president of all major surgical organizations, including the American College of Surgeons, American Surgical Association, American Association for the Surgery of Trauma and American Board of Surgery.

UNC's Consultation Center Turns 15

Staff members and former employees of the Consultation Center recently celebrated 15 years of providing North Carolina's physicians with medical information, referrals and a transport service.

"The Consultation Center has grown tremendously over the years and has helped improve relations between UNC and North Carolina doctors," said Andree Woosley, the center's first director, during the October celebration.

Woosley recalled the center's beginnings in the sub-basement of the intern quarters of Medical School Wing E. That's where the center's first three employees, along with Woosely, worked answering calls and creating software for the program. Now, the Consultation Center has logged more than 240,000 calls through its 24 hours a day, seven-days-a-week service that promises to connect doctors to UNC specialists in 90 seconds or less.

Harold C. Pillsbury III, MD, chief of otolaryngology head and neck surgery, serves as the center's medical director. "Other places in the United States have tried to do what our Center does but have not been as successful," he said. "For everything UNC has aspired to do over the last 15 years, the Consultation Center get an A plus. Its success is a tribute to everyone who helps provide this service."

UNC Health Care Practice Closings, Expansions

The Community Health Center in Snow Camp closed its doors at the end of 2000 due to low patient volume. "It was a hard decision to make," said Jennifer Toney, former practice manager. "Most of the patients used the Snow Camp clinic for urgent care and not annual visits which help keep a clinic running," she said.

A women's cardiology program is being added to the list of services at Chapel Hill North Medical Center. Eileen Kelly, MD, Terry Thomas, RN, MSN, and Chris Greenwood, RN, staff the program. The Woman's Heart Program opens February 2001.

In other news, dramatic strides have been made in the construction of the playroom atrium in the new N.C. Children's Hospital. Located on the seventh floor, the multi-storied room features an impressive view — all the way into Chatham County — through a large palladium window. The openness contributes to the overall goal of the space: to make it feel like a park setting in which children can play. In recent weeks, workers have installed gazebos and ramps, a rock fountain and other equipment. A special type of flooring that will provide a sense of grass as well as a mock stream will complete the atrium.

Research Briefs

Carolina scientists first to identify, purify liver stem cells; a milestone for future liver regeneration via cellular therapy

After studies spanning more than a decade, scientists at the University of North Carolina at Chapel Hill have become the first to identify and purify hepatic stem cells, progenitor cells capable of regenerating liver and bile duct tissue.

The accomplishment marks a milestone for future liver regeneration through cellular therapy, a treatment that could drastically reduce the need for whole-organ transplant in people with a variety of liver diseases. The current number of patients awaiting liver transplantation is 15,700 nationally, but only 4,000 liver transplants have been performed.

"Liver transplantation for end-stage liver disease is severely limited as a therapy for the vast majority of patients," said Lola Reid, MD, professor of cell and molecular physiology.

"Chronic end-stage liver disease accounts for approximately 50,000 deaths annually in the United States," she said. "Since one donor organ helps only one or two recipients, there is an increasing gap between donors and transplant candidates over the past decade."

In a report recently published in the Proceedings of the National Academy of Sciences, Reid and research associate Hiroshi Kubota, PhD, described another first: the colonization in lab dishes of a multitude of rat hepatic stem cells from a single cell. "We are the first to develop culture conditions that permit one to put into culture these cells at densities of a single cell in the dish and then have it grow into a colony," Reid said.

"People have been putting mature liver cells in culture for decades, but they always had to put them in at very high densities or they didn't survive. This meant you could never ask whether a given cell was capable of extensive growth or capable of producing daughter cells of more than one fate. We now have conditions in which a single cell can be put in and it will survive and grow extensively."

Liver cells are renowned for their regenerative capacity in vivo, but in culture they were found to go through only one or two divisions. No one could explain why. This was exacerbated by the dogma in the field that all liver cells are co-equal in their ability to grow and restore liver tissue. Reid and her associates have shown that only the cells early in the lineage are capable of repeatedly going through complete cell division.

Reid's research is funded by Renaissance (Incara) and by the National Institutes of Health.

For more information, see http://www.unc.edu/news/newsserv/research/stemcell112200.htm

Cell studies may further gene therapy prospects for head and neck cancer

New laboratory research at the University of North Carolina at Chapel Hill appears to kindle prospects of finding ways to treat head and neck cancer with gene therapy.

A study published in the journal Human Gene Therapy suggests that gene-therapy techniques may be developed to preferentially target cancer cells or pre-cancerous cells that are at high risk for becoming malignant.

"Right now there's no clinical application of our work in human gene therapy, but findings from our tissue culture model suggest there may be," said Wendell G. Yarbrough, MD, assistant professor of otolaryngology/head and neck surgery.

Yarbrough, a member of the UNC Lineberger Comprehensive Cancer Center, said he and his collaborators developed a tissue culture system that mimicked how normal cells grow in the body.

Using cultured cells, they created models that mimicked the three-dimensional structure of head and neck epithelium, the normal tissue that lines the inside of humans' mouths and throats. This allowed a more realistic investigation of a widely studied gene transfer technique that uses a common cold virus — adenovirus — to infect cells and deliver therapeutic payloads.

"If you take cells out of the body and put them in tissue culture, they typically grow as a monolayer, one cell layer thick," Yarbrough explained. "But that's not the way they are in the body. These can be infected by adenoviruses very easily. But if you let cells start piling up on each other and differentiating the way they do in the body, then it's very hard to infect them."

Now it appears that the reason for that is linked to whether or not the cells show gene expression of a specific protein, a receptor site known as hCAR, human coxsackie and adenovirus receptor.

"And that's what we found," Yarbrough said. "We correlated the ability of cells to be infected by adenovirus with the expression of hCAR, a receptor that's responsible for binding to adenovirus and getting it into the cells. This is the first report of gene expression of this receptor in normal human epithelium."

But that was only part of the story.

The researchers found it much more difficult to infect normal human oropharyngeal (mouth) epithelial cells than it was to infect oropharyngeal tumor cells.

The findings also carry possible implications for treating severe cellular dysplasia, a precancerous condition characterized by cellular abnormalities. These cells are undifferentiated and like cancer cells express the hCAR receptor.

For more information, see http://www. unc.edu/news/newsserv/research/therapy112000.htm

Studies say delay in seeking stroke treatment can lead to death, permanent impairment

People who think they or someone else is suffering a stroke need to call 911 to summon emergency medical service (EMS) immediately and not wait for any reason, according to two new University of North Carolina at Chapel Hill studies. That's the most effective way to take advantage of a new clot-busting drug known as tPA and possibly prevent death or permanent impairment.

The related studies, conducted at the UNC schools of public health and medicine, focused on why stroke treatment often is de-

layed. Both appear in the November 2000 issue of Stroke, a publication of the American Heart Association.

One, titled "Second Delay in Accessing Stroke Healthcare (DASH 11) Study," looked at how patients and witnesses reacted to stroke symptoms and tracked 617 patients arriving at hospital emergency rooms in Denver, Chapel Hill and Greenville, NC.

Patients who used EMS had a median prehospital delay of 2.85 hours, compared to 4.03 hours for those who didn't use EMS, said doctoral student Emily Schroeder and her mentor, Wayne D. Rosamond, PhD, assistant professor of epidemiology. But even the 2.85-hour median elapsed time for patients using EMS is far too slow.

"It can take an hour or more to complete and interpret necessary tests like a CT scan, which have to be done before thrombolytic (clot-dissolving) therapy can be given," Schroeder said. "The time a patient takes deciding to seek care is the biggest portion of the time between onset of symptoms and treatment. Once EMS is alerted, things can happen quickly, but people don't call 911 unless they perceive their symptoms to be urgent."

Dexter L. Morris, MD, vice chair of emergency medicine, led the second study, which involved monitoring 1,207 patients diagnosed with stroke or "mini-strokes" at 48 hospital emergency rooms nationwide.

"There's a limited window of opportunity of about three hours after the onset of stroke symptoms in which the patient's outcome can be altered by thrombolytic therapy," Morris said. "This treatment appears to give a patient a 30 percent better chance of having minimal or no stroke-related disability."

In that study, the Genentech Stroke Presentation Survey, the median delay time before treatment was four hours and in some cases, treatment was not begun for more than eight hours.

Delays were shortened when someone other than the patient noticed their symptoms, which can include headache, dizziness, confusion, loss of speech, vision impairment, numbness and paralysis, Morris said. The most significant factor in cutting time before treatment was calling EMS quickly.

New drugs help more in first-time schizophrenia than older medications

People diagnosed with first-episode schizophrenia may fare much better when treated with newer anti-psychotic drugs than with traditional medications that were first introduced more than 40 years ago, new research indicates.

A study of 200 young adults in China by a University of North Carolina at Chapel Hill psychiatrist working with Beijing and Harvard University scientists is the first to directly compare treatment with clozapine, an atypical anti-psychotic medication, with chlorpromazine in people who had a first episode of schizophrenia. None had ever been treated for the disorder with these medications.

In this double blind study, patients were randomized to receive treatment with one drug or the other. Neither they nor the researchers knew who received which one until the data were analyzed. The findings clearly tilted in favor of clozapine.

"We found that clozapine acts faster and produced fewer patients who drop out or stop treatment because of side effects," said Jeffrey A. Lieberman, MD, professor of psychiatry, pharmacology and radiology. "This is the first time a study's ever been done comparing the prototype of this new class of drugs with the old group in a large sample of patients."

Lieberman presented the findings Dec. 11 to the 39th annual meeting of the American College of Neuropsychopharmacology in San Juan, Puerto Rico.

Patients in the study whose blood tests showed signs of exposure to the parasite toxoplasmosis responded poorly to treatment, the study found for the nervous system, where it can lie dormant for a long time in its migration to the brain."

Given this finding, the UNC psychiatrist said a potential treatment strategy for schizophrenia in a population with a high risk for toxoplasmosis may be using standard anti-psychotic medication along with one of the drugs typically used against the parasite.

For more information, see http://www.unc.edu/news/newsserv/research/med121100.htm

Black men more likely to suffer some osteoarthritis, differences in women weight-related, research shows

Older black men in the United States are about 33 percent more likely than white men here to suffer hip osteoarthritis, a new University of North Carolina at Chapel Hill study shows. Weight differences account for comparable disparities in the degenerative condition in women.

"We also found about the same proportion of African-American men having knee osteoarthritis as white men, but blacks were 65 percent more likely to have it in both knees and faced almost three times the risk of more severe knee osteoarthritis," said Joanne Jordan, MD, research associate professor of medicine. "We're not sure why they get it worse. It might have something to do with physical demands of what they did at work, but none of the things we looked at seemed to explain the differences."

Black women were about twice as likely as white women to develop the condition, to get it in both knees and to experience greater severity, the study showed. Those differences, however, appeared to result from black women being heavier for their height than white women, said scientists, who controlled for obesity, age and education.

The study, presented at an American College of Rheumatology meeting in Philadelphia, involved 3,145 randomly selected people participating in the Johnston County, NC Osteoarthritis Project, a U.S. government-sponsored study that for the first time includes many black subjects. Most investigators consider the research to be the most definitive study ever done on racial differences in osteoarthritis.

A third of study participants, all over age 45, were black, and almost two-thirds were women. UNC researchers found no differences in hip osteoarthritis in women of different races.

From earlier studies in Africa and the Caribbean, researchers expected to find little hip osteoarthritis among U.S. blacks, and so the new results were a surprise, Jordan said. Differences may result from diet, bone density disparities, genetic mixing or differing work experiences. Or they may result from some combination of the various factors.

"This study is important because it shows, really for the first time, that African-Americans have more severe knee osteoarthritis than Caucasians do in the United States, and that most of this, in women, is associated with greater body mass index," the physician said.

Premature Delivery Led Doctor to Write Book on 'Preemies' for Parents

For years as a physician, Mia Wechsler Doron, MD, assistant professor of pediatrics and social medicine at the University of North Carolina at Chapel Hill School of Medicine, witnessed most of the problems facing "preemie" parents. But the situation hit closer to home several years ago when her sister, Dana Wechsler Linden, gave birth to twins almost three months early.

Doron, who researches decisions parents and doctors make about premature babies, recalled hours spent with her sister at the hospital, answering the questions that brief talks with other busy doctors and nurses couldn't satisfy.

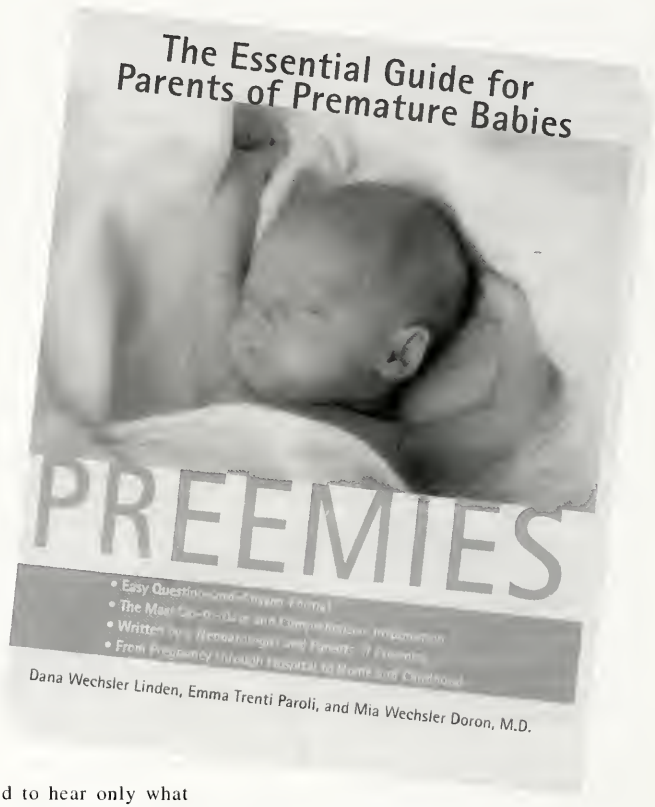
Mia Wechsler Doron, M.D.

"It made me realize in a personal and powerful way that the information we give to parents is completely inadequate to their needs," she said. "To provide it face-to-face in an individualized way about each baby is impossible, because a physician could never spend eight hours — or even one hour — a day with every family. It became obvious that just doctors talking to families was not doing the trick."

Doron gave her sister and brother-in-law the most popular book on premature births — a gesture intended as a kindness. Only later when the Lindens had brought their surviving daughter home did she learn that the book, largely out of date, offered little hope to parents of preemies and heightened the couple's fears and confusion.

The sisters and Emma Trenti Paroli, a journalist Linden met when their infants shared an intensive care unit room, put their heads together. Paroli agreed with Linden, a former *Forbes* magazine editor, that someone needed to write a book.

"We discussed the fact that parents of premature babies need a lot of complex, sometimes scary, information," said Doron. "To keep their hopes and fears realistic, they need to hear only what applies to their own child. We believe the same information — and good doctors know this intuitively — can be given in a helpful way to someone experiencing this trauma."


The Essential Guide for Parents of Premature Babies
PREEMIES
Dana Wechsler Linden, Emma Trenti Paroli, and Mia Wechsler Doron, M.D.

Combing their skills, the three wrote *"Preemies: The Essential Guide for Parents of Premature Babies"* (2000, Pocket Books/Simon & Schuster).

According to reviews and sales figures, the book is filling a void. Media coverage exploded with last week's *New England Journal of Medicine* article on outcomes in extremely premature births.

Two years in the writing, "Preemies" contains details about what happens to babies and when and how various procedures are done. It is divided into sections in such a way that parents don't have to read bad news if it doesn't apply to them.

"Clearly, this is not an experience just for the baby," Doron said. "Other books have not adequately addressed the notion that parents — especially parents of extremely premature babies — undergo what may be the worst experience they'll ever have — contemplating the possible death and handicaps of their child." □

Merrimon Lecture

The School of Medicine presented this year's Merrimon Lectureship in Medicine on November 8. Paul E. Farmer, MD, PhD, co-director of the Program in Infectious Disease and Social Change at Harvard Medical School, delivered the lecture, "Pathologies of Power: Medicine, Science, and the Future of Human Rights."

Farmer, who has worked as medical co-director of a clinic in rural Haiti and as medical director of a community program in urban Peru, spoke about the increasing inequalities in medical care among countries with large cases of infectious diseases, such as tuberculosis and HIV.

Farmer said increases in poverty and inequalities between the "haves" and "have-nots" in countries such as Haiti and Peru leads to questions surrounding health and human rights.

"There is a debate over treating people with difficult to cure diseases and the authorities who say (the diseases) are too costly to treat," Farmer said.

Farmer said there were no easy solutions to eliminating the economic gaps, but many organizations could work to set new agendas for health and human rights. By working together to set new agendas, organizations such as the World Health Organization can help control and prevent diseases that have been described as incurable, he added.

"We're living in an area of increasingly effective interventions. I believe we need to broaden our coalitions and include more people if it's going to work."

Farmer is an infectious disease physician and anthropologist who has worked in tuberculosis control for over a decade.

Farmer speaks with colleagues and students after delivering his lecture on health and human rights.

The Merrimon Lectureship in Medicine, which was established by Louise Merrimon Perry, MD, "in respect and honour or the Great Traditions of the Science and Practice of Medicine," was inaugurated in 1966. □

Professor of Medicine and Associate Chair for Education J. Stephen Kizer, MD, chats with Whitehead Council Co-Presidents Rodney Look and Janey McGee, after giving his light-hearted talk, "Warts Progress and Other Things," at the 38th Whitehead Lecture and Awards Ceremony. Along with being this year's Whitehead Lecturer, Kizer was awarded the Kaiser-Permanente Excellence in teaching Award in the clinical sciences.

Gifts To School of Medicine

Betty Ann and Clarence Miller, Jr., MD '44 with one of their three racehorses.

By Ginger Travis

"I always wanted to be a farmer or a doctor. And I always wanted to come to Carolina."

Clarence M. Miller Jr., MD '44, of Wallace, NC, did come to Chapel Hill and did choose medicine — decisions that helped chart the path of his adult life through two stints at UNC, Army service, a long and successful career as a pathologist in Sewickley, Penn., a business startup and sale, and now — closing the circle — a splendid gift to endow a distinguished professorship and a scholarship in the UNC School of Medicine.

The Clarence M. and Betty Ann Miller Distinguished Professorship in Diagnostic Pathology will support excellence in clinical teaching and service. And the Clarence M. and Eleanor Y. Miller Loyalty Fund Scholarship will aid a deserving medical student.

"The cost to students going to medical school is fantastic," says Miller, "and the debt level of students is fantastic. They should be helped privately as much as possible. I'm also giving the professorship as basically another way to help future students. Research gets a lot of support; this is to support good teaching."

Charles Jennette, MD, chair of the depart-

Are All About Timing

ment of pathology and laboratory medicine, says, "The Miller distinguished professorship will recognize the preeminent importance of clinical instruction and service to pathology. His gift will fill a void in our department, and we are deeply appreciative."

Miller arrived in Chapel Hill in 1939, almost 150 years after his famous relative, Hinton James, walked to Chapel Hill to begin his studies. (James, the first student to enroll at the nation's first public university, showed up for classes on Feb. 12, 1795.)

"I had a great time there, both as an undergraduate and in medical school," Miller recalls. He lived in Ruffin dorm, played all the sports he could, and did well enough in chemistry to start medical school at Carolina. He completed UNC's two-year program in 1944 and then finished his medical degree at Jefferson Medical College in Philadelphia — where he also met his first wife, Eleanor. The Army had paid his way through Carolina, so he repaid the Army with service in Korea and Japan.

Once Miller realized he liked pathology, he returned to Chapel Hill in 1951 as a teaching fellow – a good time to be at Carolina again. The late Kenneth Brinkhous, MD, was just beginning his distinguished work, North Carolina Memorial Hospital would open the following year, and the whole pathology department was young, including the other fellows, Margaret Swanton and George Penick.

"I just felt part of a team," says Miller. "Dr. Brinkhous asked me to stay."

But he returned north for two more years of pathology training and finally settled in Pennsylvania with his young family. He had wanted a small town with a small hospital near a university medical center, and Sewickley, a suburb of Pittsburgh, fit the bill.

A decade or so later, he made an investment that would prove very fortunate – and that would enable him to make his generous gift to the medical school. Because there was no private lab to analyze tests performed by physicians in the several small communities nearby, Miller started one. His lab was later bought out by a private regional lab — and that lab in turn was eventually bought by the Corning company. Dr. Miller used Corning stock to make his gift to The Medical Foundation of North Carolina, Inc.

A further combination of events helped Miller decide on the timing of his gift to endow a professorship and a scholarship in the School of Medicine. Those events included the death of his wife Eleanor in 1993, his retirement, his marriage to Betty Ann, and revisions he made to his estate plan.

At one point, he says, he had intended to make his gift by bequest. But then Miller realized that by establishing a charitable remainder trust he could enjoy giving in his lifetime – with many additional advantages.

The trust will provide income to him and to Betty Ann for both of their lifetimes, thereby providing for her if he predeceases her. And, funded with Corning stock, the charitable trust is not liable for capital gains tax at the time of the transfer. The charitable trust also will greatly increase income to the Millers over the amount produced by the Corning stock dividend. Finally, the gift will reduce his estate tax liability, just as a charitable bequest would. And at the end of Clarence and Betty Ann Miller's lives, the Medical Foundation will use the gift, just as Miller directed, to fund the distinguished professorship and the scholarship.

The name of the professorship recognizes his wife Betty Ann, and the name of the scholarship recognizes his late wife Eleanor. "I did this for the children," Miller says. (He has three, including one Carolina graduate, Richard.) "I wanted the children to have their parents remembered that way."

The young Tar Heel who in the 1940s chose medicine over farming has kept in touch with the land in at least a sporting way: The Miller's own a trio of racehorses — Hariki, Festival Chairman and Sand Dollar Sheik — which they board and race at a small track in West Virginia, 45 minutes from Sewickley. The purses are small, says Miller, but so are the expenses. All good fun — and another plunge by a North Carolinian who was never afraid to take a chance on the future. □

This article first appeared in the Winter 2000 issue of Carolina Corrections.

IN REMEMBRANCE

William B. Blythe, MD, *a long-time UNC physician who taught and treated thousands as he helped shape the medical school died Dec. 21, 2000, at age 72. Former student David A Tate, MD '82, associate professor of medicine in the division of cardiology, offers this tribute.*

William B. Blythe, MD

As a native North Carolinian, I learned as a child that our state flower was the dogwood and our state bird was the cardinal. I learned how we came to be called Tar Heels, and I could even hum a few bars of "The Old North State." I learned from our license plates that we were the "Variety Vacationland" and the "First in Flight. It wasn't until much later in life, however, that I learned our official state motto — *"Esse Quam Videri."* No advertising slogan this; these were real words written by real men — words to live by. This Latin phrase means "to be, rather than to seem," and it graces The Great Seal of the State of North Carolina. By legal statute, "no other words or other embellishments shall appear on the seal." The man who introduced me to these words was Dr. William B. Blythe.

This would be but a personal remembrance, hardly worthy of publication, except for the fact that he taught the word and spirit of this phrase not just to me, but to thousands of students and colleague during his more than 50 years at the University of North Carolina School of Medicine. The sadness accompanying Dr. Blythe's untimely passing may be tempered somewhat by a reflection on his prodigious legacy. He taught generations of physicians and scientists how *"Esse Quam Videri"* could be as central to a man's life as it is to our state seal. Dr. Blythe was absolutely successful but absolutely humble. He was elegantly simple and simply elegant. He was completely without pretense. He took everything he did seriously but never took himself too seriously. He was genuinely curious and inquisitive about everything and anything. He never cared about appearances or short-term gains, but instead had the wisdom and perspective to steer the university toward rock-solid, durable excellence. He spoke and wrote from the heart. He taught us by example what it meant to be the real thing – a real doctor, a real scientist, a real teacher, a real leader, a real citizen, a real husband, father, son or brother, and a real friend. In short, *"Esse Quam Videri"* was never more truly embodied than in William B. Blythe. Bill loved the State of North Carolina and The University of North Carolina, but, more importantly, he loved his family, friends, students, and colleagues. I know he would be pleased if we chose to memorialize him by striving to live in accordance with the motto of his beloved state.

For all his learned ways, Dr. Blythe enjoyed nothing more than a long walk in the woods. He made a notation each year of when he would hear the first wood-thrush call in the Spring — always, he would tell me, within a day or two of April 17. I'll miss you, Bill, when I hear the first flute-like call this April, but I know you'll be smiling to know that I made the notation for you. □

Honor Roll Corrections

The Fall 2000 issue of the *Bulletin* included the Medical Foundation's annual "Report to Donors," which features an Honor Roll of Donors who made contributions to the Loyalty Fund during the preceding fiscal year. Unfortunately, not all names were included. Names in bold type recognize alumni who contributed $1,000 to $9,999. Names in italics recognize alumni who contributed $10,000+.

Our apologies to those donors whose names appear below. Thank you again for your generous support of all programs at your alma mater.

Mark J. Abrams, MD '92, Rock Hill, SC
James R. Auman, MD '71, Chesapeake, VA
Elizabeth S. Babcox, MD '81, Shaker Heights, OH
H. Wallace Baird, MD '69, Greensboro, NC
Pauline M. Blair, MD HS, New Bern, NC
Carol A. Borack, MD '98, Rochester, NY
Richard A. Boyd, MD '56, Statesville, NC
Maurice Castillo, MD Faculty, Chapel Hill, NC
Elizabeth T. Clark, MD '86, Oak Park, IL
William M. Clark, MD '86, Oak Park, IL
Robert J. Cowan, MD '63, Winston-Salem, NC
Thomas C. Darrell, MD '83, Fuquay-Varina, NC
Lisa F. Dejarnette, MD '86, Raleigh, NC
Carrie Dow-Smith, MD '97, Pearland, TX
Joanne Earp, PhD, Chapel Hill, NC
Charles H. Edwards II, MD '73, Charlotte, NC
Susan T. Edwards, MD '76, Norwich, VT
Karolyn Forbes, MD '98, Ann Arbor, MI
Sheryl A. Gillikin, MD '85, Fayetteville, NC
Mary B. Golby, MD '50, Durham, NC
Karen L. Grogg, MD '98, Rochester, MN
Timothy R. Heider, MD '99, Chapel Hill, NC
William H. Jarman, MD '67, Gastonia, NC
Dr. and Mrs. William R. Jordan, MD '70, Fayetteville, NC
Shannon C. Kenney, MD HS, Chapel Hill, NC
Janice D. Key, MD '80, Hollywood, SC
Helene P. Keyzer-Pollard, MD'91, Gastonia, NC
Joseph W. Kittinger, MD HS, Wilmington, NC
Thomas J. Koontz, MD '66, Winston-Salem, NC
Constance F. Lefler, PhD, Fort Worth, TX
Victoria D. Lackey, MD '92, Charlotte, NC
H. Lee Large Jr., MD '40, Charlotte, NC
Catherine K. Lineberger, MD '87, Chapel Hill, NC
Dugan W. Maddux, MD '84, Danville, VA
Robert S. Miller, MD '99, Cincinnati, OH
David K. Millward, MD HS, Raleigh, NC
Jackie A. Newlin-Saleeby, MD '83, Raleigh, NC
John B. Piecyk, MD '93, Canton, MA
Harold C. Pillsbury, MD HS, Chapel Hill, NC
William C. Powell, MD HS, Fayetteville, NC
Veronica J. Ray, MD '79, Durham, NC
Amy J. Robbins, MD '91, Charlotte, NC
Patricia K. Roddey, MD '91, Charlotte, NC
Yolanda V. Scarlett, MD '89, Hillsborough, NC
Stephen R. Shaffer, MD '63, Asheville, NC
Amy W. Shaheen, MD HS, Chapel Hill, NC
Martha K. Sharpless, MD '59, Greensboro, NC
Nicole P. Shepard, MD HS, Albany, GA
James A. Shivers, MD '71, Asheville, NC
Barbara H. Smith, MD '83, Greensboro, NC
G.R. Smith, MD '51, Shawsville, VA
Linnea W. Smith, MD '76, Chapel Hill, NC
Vincent C. Smith, MD '97, Pearland, TX
Benjamin D. Thomas, MD '80, Atlanta, GA
Rebecca B. Tobin, MD '93, Chapel Hill, NC
Deborah L. Tussing, MD '83, Severna Park, MD
George D. Wilson, MD '72, Johnson City, TN
Solomon G. Zerden, MD '76, Savannah, GA
Sherri A. Zimmerman, MD '91, Cary, NC

Development Notes

Novo Nordisk establishes professorship to honor renowned hematology researcher

Novo Nordisk Pharmaceuticals Inc. has donated $1 million to establish the Harold R. Roberts Distinguished Professorship within the University of North Carolina at Chapel Hill's Center for Thrombosis and Hemostasis.

Roberts, Sarah Graham Kenan professor of medicine and pathology in the UNC School of Medicine, is the founding director of the Center for Thrombosis and Hemostasis, which studies blood-clotting disorders related to cardiovascular disease and bleeding disorders. He is recognized internationally as an expert in hematology and was the first U.S. physician to treat hemophilia patients with factor VIIa, a medication that has been extremely successful in treating hemophilia patients not responding to older or other products.

Martin Soeters, president of Novo Nordisk Pharmaceuticals, Inc., said the company was proud to recognize Roberts' achievements within hematology research by honoring him with this endowment.

"We appreciate just how critical Dr. Roberts' research has been in the development of effective means of treating bleeding disorders, particularly hemophilia," said Soeters. "He has devoted his entire career to advancing research in this field, so that people who have these disorders may have full and active lives. We hope that this professorship will further encourage the strong Carolina tradition in this vital area of medical research. Novo Nordisk is particularly interested in advancing this field and has recently introduced Novo Seven, recombinant factor VII, in the U.S."

Harold R. Roberts

The university has received approval for a $334,000 challenge grant from the Distinguished Professors Endowment Trust Fund of the State of North Carolina to bring the endowment to $1,334,000.

The search for a candidate for this professorship is scheduled to begin in the summer of 2001, and the professorship could be awarded as early as 2002. Eligible candidates are current UNC Center for Thrombosis and Hemostasis faculty members or researchers from outside the university who are internationally renowned for work within the field of bleeding disorders.

A native of Four Oaks, NC, Roberts earned his bachelor's degree and medical degree from UNC, where he was Phi Beta Kappa and Alpha Omega Alpha. He joined the UNC faculty in 1962 and has served as chief of the division of hematology and director of the UNC Comprehensive Hemophilia Diagnostic and Treatment Center.

Novo Nordisk is a focused healthcare company and the world leader in diabetes care. In addition, Novo Nordisk has a leading position within areas such as coagulation disorders, growth disorders and hormone replacement therapy. Novo Nordisk product NovoSeven Coagulation Factor VIIa (Recombinant) is indicated for the treatment of hemophilia A and B patients with inhibitors.

Excellence Fund Awards Five Grants

The Medical Foundation of North Carolina, Inc., recently awarded seed grants from its Excellence Fund to five centers at UNC. The $5,000 grants went to the Thurston Arthritis Research Center, the Bowles Center for Alcohol Studies, the Lineberger Comprehensive Cancer Center, the Cystic Fibrosis/ Pulmonary Research and Treatment Center and the Center for Maternal and Infant Health. The Excellence Fund is an unrestricted annual fund for non-alumni through the Medical Foundation.

Plans for the seed grants range from using the money to research birth defects caused by alcohol (Bowles Center), funding innovative approached to cancer research (Lineberger), and purchasing equipment for junior faculty and sending trainees to national meetings (Cystic Fibrosis/Pulmonary Research and Treatment Center). Other recipients have not yet made specific plans for the seed money.

Pictured left to right are: Jim Copeland, Foundation president ; Robert Devellis, PhD, Thurston Arthritis Research Center; Kathy Sulik, PhD, Bowles Center for Alcohol Studies; Lucy Siegel, The Center for Maternal and Infant Health; Anne Hager-Blunk, Foundation senior development officer; and Shelly Earp, MD, Lineberger Comprehensive Cancer Center. Not pictured is Rick Boucher, MD, Cystic Fibrosis/ Pulmonary Research and Treatment Center.

A Student Proves It's Never Too Late

Martha Peck and family are all smiles after the White Coat Ceremony. From left: Jason, Martha, Ray and David.

By Katie Macdonald

She doesn't quite look like the other students. And even though she looks older, she doesn't look old enough to be a student's mother. She appears to lack the "first year jitters", so she couldn't possibly be a student. But that's exactly what she is.

First-year medical student Martha G. Peck is getting a taste of student life for the first time in, well let's just say, many years. She's a wife and a mother of two teenage sons and most recently served as the vice president of the Burroughs Wellcome Fund, an independent private foundation in Research Triangle Park dedicated to supporting scientific research and education.

So, why medical school after so many years working in the private sector and having a family? Peck's childhood, background in pharmacy and inherent love of medicine are factors that raised the volume of her inner voice telling her to "go back."

Growing up in Greensboro, Peck spent many of her summers working in a physician's office and the rest of the year as a hospital volunteer. Her home life, which included a nurse mother, a pharmacist neighbor and doctor relatives, rounded out the medical influences that would later drive Peck's decision to concentrate her energies in health-related fields.

"I have always reveled in the sights, sounds, and smells of medicine," said Peck, taking time out for an interview between morning classes and an afternoon gross anatomy lab. "I think I've always known that medicine was what I truly wanted to do," she added.

Before she would finally make it to the medical school, Peck received a BS degree in pharmacy from UNC in 1974, married, started a family and then served as the vice president of a well-respected research foundation. "I don't regret not going to medical school earlier," she said. "I've had so many wonderful opportunities that have led me to this point."

In the essay Peck submitted with her application to the medical school, she wrote:

"So why medicine, why now? I believe my unique combination of pharmacy, pharmaceutical, and foundation experience provides substantial opportunity to contribute to medicine."

Peck also wrote that she wanted to focus her studies on geriatric medicine. "Geriatrics has long held my passion and interest," she said, citing statistics that by 2015 one in five Americans will be over the age of 65. She worries, however, that geriatric medicine, based on current trends, is not expanding as fast as the patients. More physicians to help the elderly will be needed.

But concentrating on geriatrics is a few years down the road for a student who received her white coat at Family Day festivities in September.

That day, Peck was joined by her husband Ray, a vice president of investments at Legg Mason, Inc., and her two sons, Jason, 16, and David, 13.

And what does her family think of her return to academia? "I think it's great," Jason said. Peck looks at him lovingly, but apologetic all the same. She possesses in that one look her anticipation for the future and the realization that her decision to choose a life of medicine will sometimes take her away from her family.

But it's all a part of fulfilling the dream. She has no doubts that she is fully prepared and qualified to live up to the demands of medical school and later a career in geriatric medicine. "I think I have a broad knowledge, diverse experience, and a proclivity for leadership," she says. With that attitude, she may not be the typical medical student, but she certainly is one of the most promising. □

Class of 2004 profile

- 48 of the 160 students are female.
- Ages range from 18 to 47, with the average age 23.
- 69 percent are Caucasian. African Americans comprise 14 percent of the class, Asians make up 13 percent.
- 88 percent are North Carolinians at the time of admission.
- All of the students have bachelors degrees, most in biology and chemistry. Masters degrees are held by 13 members of the class. Two have doctoral degrees.

Alumni Notes

50s

Garland E. Wampler, MD '56, announces his retirement. He and his wife Mary Ann have two granddaughters, ages 12 and 16. The couple recently returned home to Burnsville, NC, from a four-day trip to Virginia's Colonial Williamsburg.

M. Paul Capp, MD, '58, received the Roanoke College Medal, the highest honor bestowed on its alumni. Today, Capp is the executive director of the American Board of Radiology, a position he earned after serving as trustee and president of the board. He has received three gold medals from the Association of University Radiologists, American Roentgen Ray Society, and in 1999, the American College of Radiology. He's also a Fellow of The Royal Society of Medicine in London.

60s

Robert H. Hackler, MD '60, is a professor of urology at the Medical College of Virginia and chief of urology at McGuire Veteran's Hospital. He was honored with the Bunts-Hackler Lectureship in December, 2000.

Dave M. Davis, MD PC '63, is the medical director of Piedmont Psychiatric Clinic in Atlanta. Practicing psychiatry is still his love. He recently visited France with Ipa Hardy ('63) and John Foust ('59).

David C. Hefelfinger, MD '65, retired in March 2000 as professor and chairman of the department of pediatrics at the University of Alabama. He's been spending time playing golf, traveling, reading, writing, wine tasting and in part-time pediatric work. Hefelfinger plans to travel to Kampalla, Africa, to teach at Mulago Hospital in 2001. E-mail him at dchefel@aol.com.

A.L. Roper, MD '67, is enjoying his retirement in Norfolk, Va., by working as a deck hand. He is involved with OpSail 2000, The Great Chesapeake Bay Schooner Race, and anything else having to do with salt water.

70s

Joe Bill Putnam, Jr., MD '79, is now a professor, division of surgery, department of thoracic and cardiovascular surgery at the University of Texas M.D. Anderson Cancer Center. For the past four years, he's also served as deputy chairman of the department of thoracic and cardiovascular surgery where he concentrates on thoracic surgical oncology. Email him at putnam@mdanderson.org.

Alan M. Rauch, MD, '79, is now senior vice president for clinical affairs at Miravant Medical Technologies in Houston, Tx.

80s

Kenneth E. Hollingsworth, MD '80, resides in Georgetown, De., with his new bride Stacy LaMotta. He retired from the US Navy this fall and is currently working as an anesthesiologist in private practice at Nauticoke Memorial Hospital in Seaford, De.

UNC Department of Psychiatry bestows distinguished alumnus award

The UNC Department of Psychiatry named Charles B. Nemeroff, MD '81, its George C. Ham Society Distinguished Alumnus for 2000.

Nemeroff, the Reunette W. Harris professor and chair of Emory University's department of psychiatry and behavioral sciences, received the award Nov. 18 during the department's annual George C. Ham Symposium.

Nemeroff, who earned both his medical and doctorate degrees at UNC, is well-known for his research into the biological causes of major neuropsychiatric disorders, including affective disorders, Alzheimer's disease, schizophrenia and anxiety disorders. He received the UNC School of Medicine's Distinguished Service Award in 1999.

Associate editor of Biological Psychiatry, Nemeroff serves as co-editor-in-chief of both *Critical Reviews in Neurobiology and Depression and Anxiety*, and is the co-editor of the Textbook of Psychopharmacology published by the American Psychiatric Association Press, now in its second edition. He serves on the Mental Health Advisory Council of the National Institute of Mental Health, and is past president of the American College of Neuropsychopharmacology and president-elect of the American College of Psychiatrists.

Terance L. Lamb, MD '85, is practicing internal medicine at Wyman Park Medical Associates in Baltimore. The practice is part of Johns Hopkins Medical Services Corporation.

90s

Crystal Duncan Katz, MD '91, and **Seth Katz, MD, '91**, celebrate the arrival of their son Alexander Duncan Katz on Oct. 24, 2000. He has an older sister, Isabelle, age 2. Crystal is an anesthesiologist and husband Seth is director of infertility services at the University of California at San Diego.

W. Kent Guion, MD '92, is an associate professor in the department of health and kinesiology at Geroge Southern University. Guion also is director of the center for rural health and research. He and wife Jeannine welcomed their first child, Sydney Nicole, in August 2000. Email him at kguion@gsaix2.cc.gasou.edu

Peter R. Young, Jr., MD '92, after working for 2 1/2 years in a private general surgery practice in Raleigh, NC, is leaving for Yakima, Wa. to join Cascade Surgical Partners.

Loretta Kaus Tibbels, MD '93, recently welcomed Nicholas Stephen Tibbels into the world. Nicholas joins his three big sisters, Stephanie, 5, Lauren, 4, and Danielle, 2. Tibbels works as a clinical assistant professor with Nebraska Health Systems.

Wendy J. Grant, MD '94, was recently named fellow for solid organ transplant at the University of Nebraska. She completed her general surgery residency at the University of Utah in July 2000.

Michael K. Champion, MD '96, was awarded the Rappaport Fellowship by the American Academy of Psychiatry and the Law. He began a fellowship in forensic psychiatry at Yale University in July 2000.

Deaths

Ralph B. Garrison, MD '31

Charles F. Scarborough, Jr., MD '44

David Jay Collender, MD '89

President's Letter

In the tiny Appalachian coal-mining town of Whitesburg in eastern Kentucky, I served two years with the National Health Service Corps. Though its abject isolation was initially painful for Diane and me, it turned out to be an invaluable experience, one that I still draw from now, 12 years after our leaving.

I remember one patient, an unassuming world-class fiddler with a brief touring career, who tried unsuccessfully to pass some of his skill to me. Despite his musical gift, he lived in poverty. The roaches crawling along the interior walls of his trailer remain a vivid memory. Mr. Sumner, now deceased, probably never even noticed the creatures in his home. He seemed oblivious to many of the everyday concerns that burden the average person. His widow and I continue to exchange Christmas cards.

Another patient, a retired gentleman who lived in a hollow fully four miles back into the woods, shared his love of woodworking. Specifically, he was reared in the art of woven hickory bark seats and chair backs. With tobacco-browned points for teeth and a monthly government income of about $800, he was not the picture of success. Yet his four or five annual projects were sufficient for his unhurried brand of contentment. Not before or since have I met anyone happier than he. One of his rocking chairs, made from my sketch, occupies a corner of my living room.

All of this brings me, circuitously, to my Methodist minister in Whitesburg. He was a good soul overall, but battle-worn and cynical far beyond his 32 years. Once, he explained to me that he avoided "money sermons" because they invited the congregation to serve up their favorite Sunday dinner — Roast Preacher. He was only half kidding and my own experiences have since shown that money is indeed an incendiary topic. I have learned to tread lightly.

That said, I nonetheless forge ahead to make the case for alumni financial support of our medical school. Please consider these facts:

UNC School of Medicine tuition, in-state, 1980	**$980**
UNC School of Medicine tuition, in-state, 2000	**$3,220**
Duke Medical School tuition, 1980	**$6,300**
Duke Medical School tuition, 2000	**$27,600**
Actual cost of medical school, estimated	**$100,000**
Average US physician income (1999)	**$163,170**

Clearly, there can be only one reasonable response to these figures — gratitude. Toward whom do we express this gratitude? Where does the School of Medicine get the bulk of its support?

First, research grants and contracts generate the largest proportion of revenue for your School of Medicine. As shown in a pie graph in the 2000 Donor Report of the Medical Foundation, fully 36 percent of the $473 million total comes through faculty who compete successfully for funding from NIH and other sources.

Second, clinical care accounts for 29 percent of medical school income. As known all too well by those of us in practice, managed care and other factors steadily erode practice receipts as expenses climb skyward year after year. Maintaining fee-generated income is an even greater challenge for UNC which shoulders a disproportionate share of uncompensated care.

Ranking third among the School's funding sources is state taxpayer support. At 18 percent, this comes as a surprise to many North Carolinians — including many of our own medical alumni — who have believed that UNC School of Medicine's financial health is secure because of it is a state-assisted institution. As you can see from the percentages above, financial strength must be earned anew each year. Even in the heady afterglow of the higher education bond campaign which will bring a transforming $88 million

to the medical campus for new buildings and renovations, added funding is still needed for competitive salaries and other operating expenses.

Yes, we alumni are deeply in debt to others for our medical educations — faculty, patients, taxpayers, benefactors. But this debt is not an onerous burden. Rather, it is a tie that binds us proudly together. Our happy privilege is to respond with ongoing financial support.

Paul Viser, President

CME/Alumni Calendar

February 16, 2001 – Chapel Hill
Community Service Day

February 27, 2001 – Hope Valley Country Club, Durham
Dean's Reception for Durham-Orange Counties, 7-8:30 p.m.

March 1, 2001 – Mint Museum of Art, Charlotte
Dean's Reception for Mecklenburg County, 7:8:30 p.m.

March 1, 2001 – Chapel Hill
Neuro-Ophthalmology Review

March 7-9, 2001 – Chapel Hill
25th Annual Internal Medicine Conference

March 22-23, 2001 – Chapel Hill
High Functioning Autism

April 3, 2001 – Country Club of Asheville
Dean's Reception for Buncombe County, 7-8:30 p.m.

April 8-12, 2001 – Waikoloa, Hawaii
Breast Imaging: Digital Mammography Update '01

April 10, 2001 – Chapel Hill
Emergency Medicine Research Forum

April 11, 2001 – Cape Fear Country Club, Wilmington
Dean's Reception for New Hanover County, 7-8:30 p.m.

April 27-29, 2001 – Chapel Hill
UNC Medical Alumni Association Spring Weekend

For more information about CME courses, contact the Office of Continuing Medical Education at (919) 962-2118 or toll free through the Consultation Center at (800) 852-6264. To contact the Alumni Affairs Office, call (919) 962-6786 or email medical_alumni@med.unc.edu

Estate Planning Notice

Many individuals would like to make a major gift to the UNC medical center, but cannot commit current assets for such a purpose. Through a will, however, anyone can make a more significant gift than they might ever have thought possible by designating a specific sum, a percentage, or the residue of their estate for the benefit of the medical center.

To provide a bequest, simply include a paragraph in your will naming The Medical Foundation of North Carolina, Inc. as a beneficiary. For example:

"I give, devise and bequeath (the sum of $_____) or (_____% of my estate) or (the residue of my estate) to The Medical Foundation of North Carolina, Inc., a 501(C)(3) created to maintain funds for the UNC medical center with principal offices located at 880 Airport Road, Chapel Hill, North Carolina."

This language creates an unrestricted bequest for use by the medical center when and where the need is greatest, or you may specify that your gift be used for a particular purpose.

For further information on bequests, contact Jane McNeer at (919) 966-1201, (800) 962-2543, or jmcneer@email.unc.edu.

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Spring 2001

Medical Alumni BULLETIN

School of Medicine, University of North Carolina at Chapel Hill

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Eye on the Future: UNC and the Genomics Revolution

Dean's Page

In mid-February the world was presented with a map of the human genome. Today we begin a journey to understand how genes do their work and how it affects people, animals, and plants. In this dawning genomics era, discoveries will continue to astound, each having a potentially profound effect on our understanding of human life and how our genes predispose and protect us from disease. Medicine and how it is practiced will be enormously affected as we move from a reactive stand of treating established disease alone to a proactive one of preventing the onset of disease as well.

To meet these discovery challenges, UNC has initiated an unprecedented phase of growth and expansion in human genetics, molecular genetics, gene expression, developmental genetics, genome mapping and organization, genetic epidemiology and biostatistics. The result is exciting research programs and training in all aspects of genetics, in organisms ranging from plants, fruit fly and nematode to mouse and human.

This initiative in genetics and genomics has led to the establishment of a new Department of Genetics within the School of Medicine and a university-wide center for genetics and genomics: the Carolina Center for Genome Sciences.

Last month, details of the University's major investment in genome sciences were announced at a special event in Chapel Hill. Hosting the event was Chancellor James Moeser. He said that "this new era for discovery at Carolina has been shaped by our past." The Chancellor noted the "rich history of pioneering work in the social sciences; legendary quality in the humanities; and outstanding multidisciplinary research in all five health sciences schools that long has tapped the expertise of colleagues across the campus in other disciplines as well."

Using conservative estimates, we are committing $245 million over the next 10 years to programming, faculty positions, start-up costs, and new buildings to support genome sciences. That is a significant total among major public and private universities and a strong indication of how important genome sciences is in our strategic thinking about Carolina's future.

Much of the credit for establishing this $245 million initiative goes to the Deans of the various schools and the Provost. Together, the Deans reallocated 22 positions, taking them from old programs. The Provost and Chancellor committed 18 new positions from new endowment monies.

Equally important are our partners in this investment off campus. They include the people of North Carolina with their votes in last year's historic statewide bond referendum; members of the North Carolina General Assembly; the federal government and our state's Congressional delegation; and private foundations and individuals.

Of these partnerships, I want to highlight two investments:

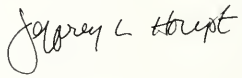
- An anonymous $25 million donation to create the Michael Hooker Center for Proteomics in the School of Medicine. This genetics specialty area involves cataloguing proteins expressed in cells — a topic that is particularly timely given recent reaction among scientists about the potential role of proteins in the entire human genome puzzle.
- A $2.25 million federal government investment to provide program and infrastructure support, including lab equipment. This appropriation resulted from efforts by Chapel Hill's own David Price and congressional colleagues, including Senator Jesse Helms, to secure it as part of the federal budget finalized last December.

The biological revolution being spawned by the genome sciences has enormous potential to help humanity and at the same time create a significant economic impact. But it raises a broad range of social, psychological, and ethical issues that we as a society are not yet prepared to answer.

The complexity of what lies ahead certainly will hinge a great deal on the science, but we know it must go far beyond experiments in a laboratory or with treatments in a clinical setting. That is precisely why the effort here will be university-wide, joining medicine, the other health sciences, the College of Arts and Sciences, and professional schools such as Law and Information and Library Science.

In Terry Magnuson, PhD, one of the most highly sought-after scientists in mammalian genetics, we have recruited the best person in the country to lead this initiative and build upon our many strengths here in Chapel Hill. In turn, he has led efforts to persuade some of the world's leading scientists that our collaborative culture is worth a move, even across oceans. This campus is energized, and we have set our sights high.

I hope you will follow with me our leadership in the field and enjoy the excitement it will bring.



Jeffrey L. Houpt, MD
Dean, School of Medicine

Medical Alumni BULLETIN

School of Medicine, University of North Carolina at Chapel Hill

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On the Cover: With the human genome now mapped, DNA is more important than ever in the future of medical research. UNC hopes to lead the way.

Genome Science Initiative F

A public-private investment in a campuswide genome sciences initiative representing at least $245 million over the next decade places the University of North Carolina at Chapel Hill in the driver's seat of this breathtaking revolution.

That commitment, which includes a $25 million anonymous gift, places UNC at the forefront of discovery in this rapidly emerging scientific field, said Chancellor James Moeser at the February announcement.

"We aim to do our part in leading this breathtaking revolution spurred by DNA and the book of life," he said. "Carolina will be a driving force in determining how the genomics revolution will change the way in which we treat human diseases, design drugs and grow crops."

University leaders, representing diverse academic areas, are making strategic support of the UNC genome sciences a top priority and are investing the resources necessary to position UNC for leadership among major research universities.

Quick Progress in Building a Genomics Program

A strategic pursuit of state and federal funding, coupled with strong support from North Carolina taxpayers and private donors, has further fortified quick progress in building a genomics program. A few examples follow:

New buildings: Four new buildings that will house genomics research are supported in part by the historic bond referendum approved by North Carolina voters last fall. The Medical Biomolecular Research Building, a $64-million project, will receive $34 million in bond money and prior state appropriations; the Science Complex, estimated to be a $400-million-plus project, will receive $88 million in bond money toward its first two phases; the Bioinformatics Building, a $30-million project, will receive $2 million in bond money; and the Research and Teaching Building, a $39-million project, will receive $13 million in bond money. Portions of these buildings will be used for genomics and related research.

Campuswide strategic support: The university has committed more than $50 mil-

The new Bioinformatics Building will encompass 150,000 square feet over six floors. The projected construction completion date is December 2002.

uts UNC in the Driver's Seat

lion in recurring funds for 40 new faculty positions associated with genomics, through carefully considered reallocation of existing funds or generation of new funds for this scientific initiative. This support also includes start-up costs and laboratory equipment.

The Michael Hooker Center for Proteomics: An anonymous $25 million gift was made to the School of Medicine that supports research in a promising area of specialization in genetics that catalogs the proteins expressed in cells — crucial to the potential of the Human Genome Project. Michael Hooker, UNC chancellor from 1995 until his death in June 1999, was a strong advocate for science and technology initiatives at UNC. In 1999, an anonymous gift created a $1 million endowed professorship in biology with a focus in genomics to honor him.

New federal appropriation: The N.C. Congressional delegation, including Sen. Jesse Helms and Rep. David Price, secured a new $2.25 million appropriation under the U.S. Department of Health and Human Services budget. The appropriation will fund program and infrastructure support including laboratory equipment.

A Timely Initiative

School of Medicine Dean Jeffrey L. Houpt, MD, said the genome sciences initiative is especially timely, as scientists are making remarkable discoveries about the role of proteins in unraveling the mysteries of DNA and the human genome.

Genomics involves the study of the sequence of DNA, which is the genetic material of living organisms. Knowledge of genes and their role in human disease may ultimately prove instrumental in cures for a wide variety of diseases. Internationally renowned scientists, including Francis Collins, MD, director of the National Human Genome Research Institute and a UNC medical school graduate, announced Feb. 12 the first "map" of the human genome.

"One of the major discoveries that came out of this recent announcement was just how instrumental the proteins are in the processes that keep the body healthy, as well as the factors that result in disease," Houpt said. "The fact that we already have received a $25 million gift devoted solely to the study of proteins brings an added sense of excitement to our genomics initiative."

Last summer, UNC recruited Terry R. Magnuson, MD, from Case Western Reserve University as founding chairman of the department of genetics. (A profile of Magnuson appeared in the summer 2000 issue of the *Medical Alumni Bulletin*.) Magnuson brought with him his entire 15-member laboratory group – and 10,000 mice for mouse genetics research.

In his first six months on the job, Magnuson hired seven of the top assistant professors in the field, including three from prestigious posts in England. He also organized the campuswide center for genome sciences, called the Carolina Center for Genome Sciences. Both the department of genetics and the center are in the School of Medicine but extend to other parts of the university.

An Investment in Patient Care, Disease Treatment

The UNC budget committee, the Provost's strategic initiative and other university sources have allocated $7.3 million this year alone in start-up funds for genome sciences.

UNC received two prestigious grants in 1999, which added momentum to its efforts to become a leader in genomics research. The Howard Hughes Medical Institute gave the School of Medicine $2.6 million, distributed over four years, to develop and staff a new genetics center. And the National Institutes of Health selected UNC as one of two Regional Mutant Mouse Resource Centers in the nation, a grant of $5 million over five years.

In addition, the North Carolina Biotechnology Center has invested more than $400,000 in UNC's genomics initiatives, including funds to help recruit Magnuson. The university's efforts will benefit the state's economy as research finds application in medical and business areas. And it will present opportunities to collaborate on research with other state campuses.

North Carolina voters played an important role in UNC's genomics "blueprint," approving November's bond referendum allocating $3.1 billion to UNC campuses and N.C. community colleges for repair, renovation and construction of classrooms, laboratories and other buildings. UNC-Chapel Hill's portion of the bond package is about $499 million.

Houpt said genomics will transform the field of modern medicine, and that the presence of one of the nation's top teaching hospitals, UNC Hospitals, will enhance opportunities for collaboration to take research findings from the laboratory to the clinical setting — and, ultimately, to patients.

Collaboration and Training for the Future

Magnuson said a teaching component is critical to UNC's promise of becoming a leader in this emerging science. UNC's department of genetics is establishing a human genetics minor and, in conjunction with the clinical departments, just accepted its first medical genetics resident.

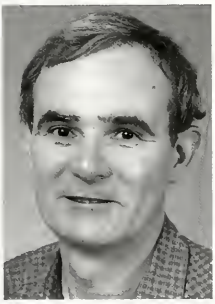
"We have an obligation to train the next generations of medical researchers to fulfill the promise of this field, and our campuswide collaboration will ensure that these budding researchers have the breadth of knowledge that encourages discovery," Magnuson said.

Genomics 101: Top Facu

Editor's Note: In February, a special briefing by several faculty leading UNC's efforts in genome science was held at the Lineberger Comprehensive Cancer Center. They addressed the implications of genomics in areas ranging from cancer to cystic fibrosis to biology. It was attended by news reporters, colleagues, and members of the UNC Board of Trustees. Here are excerpts from the briefing.

Terry Magnuson, PhD, Sarah Graham Kenan Professor

Magnuson, founding chair of the department of genetics, is organizing a campuswide center for genome sciences. Magnuson is one of the world's most sought-after experts in mammalian genetics. His research focuses on genomics and mammalian developmental genetics.



Magnuson

The Challenge of the Post-Genome Era

With the development of new data on gene sequence, along with emerging novel technologies, the global biomedical research enterprise is undergoing a major paradigm shift that is revolutionizing biological research. Hypothesis-driven science has been the historical modus operandi for the last 200 years. However, because of the current exponential increase in genomic data, a shift to discovery-driven science is under way. This change will form the basis for new, more intelligent hypotheses, which will serve as the foundation for new, targeted treatments for many diseases. Furthermore, preventive medicine will flourish with the identification of individual predisposition to specific diseases and a much deeper understanding of basic biological phenomena.

The immense quantity of data being generated is just the beginning of this revolution. The next great challenge is now upon us: to provide meaning to this vast catalog of information, a challenge orders-of-magnitude more difficult than we have previously faced. Knowing which gene networks are not functioning properly, or which genetic variants influence disease predisposition in an organism, contributes significantly to the ability to develop effective clinical interventions for any particular disease.

A basic research program in genetics and genomics within the context of a major university such as UNC represents an exciting paradigm for bench-to-bedside research. The research approaches being applied range from large-scale genome sequencing to the micro-scale assaying of the metabolic state of a single cell. However, all approaches share the theme of integrating biology with technology and maximize the use of computational data analysis and management.

The application of the tools of genetics/genomics will have a profound impact on scientific discovery, the delivery of health care, the legal system and on many aspects of our culture and society. As a result, these technologies and their scientific uses demand integration with the ethical, legal, social and technology transfer programs.

H. Shelton Earp III, MD '70

Earp is director of the UNC Lineberger Comprehensive Cancer Center. His laboratory conducts basic research on the behavior of cancer cells, studying signals that regulate cell growth, differentiation and death. His group recently has isolated and sequenced two new genes involved in a cell's decision to divide or die. He has authored 100 biomedical-research papers and serves as the principal investigator on four grants.

Earp

Research in Cancer Genetics: Toward Improved Cancer Prevention & Treatment

Some gene mutations are carried by the germ cells, sperm or egg, from parent to child; these can result in inherited illnesses. Mutations, both spontaneous or caused by environmental exposure, also occur in the body's other cells during the course of our everyday existence. These single mutations in our non-germ cells are often harmless and the cell simply dies. Mutations in growth regulatory genes, however, can start a cell down the path to cancer.

Fortunately, the body still has many lines of defense left, and most clinically apparent cancers can only be established when the original cell continues to divide and picks up four to six additional mutations over the course of 10 to 20 years. Molecular approaches have allowed identification of some key mutations that initiate cancer progression; however, sequencing of the human genome is a watershed event that will lead eventually to a fuller understanding of the relation between genes and cancer.

One large project undertaken by a team of investigators is defining cancer susceptibility.

We know that certain families exhibit a high risk of cancer because they carry a mutated gene and pass it from generation to generation. While these familial cancer syndromes constitute only between 5 percent and 10 percent of cancers, identification of the involved genes has been enormously instructive. Most of these familial cancer genes function in control of DNA replication or proofreading and repair of damaged DNA. These are the cell's fail-safe mechanisms that prevent mutations and allow perfection in the passage of our DNA to daughter cells. When the capacity to police DNA imperfections is compromised, many more mutations occur, making cancer-causing mutations all the more likely. One hypothesis of our cancer genetics effort is that the other 90 percent of cancers do not arise spontaneously in an equally susceptible population. Rather, we believe that individuals or families vary in cancer susceptibility because they inherit a

ty Share Research Insights

complex set of gene alterations — each one of which, by itself, is insufficient to increase susceptibility, but the constellation, when inherited together, increases cancer risk.

Richard Boucher, MD, William Rand Kenan Professor, Department of Medicine

Boucher has directed the Division of Pulmonary and Critical Care Medicine, Department of Medicine, since 1990 and the Cystic Fibrosis/Pulmonary Research and Treatment Center since 1988. He is co-director of the UNC Gene Therapy Center. In 1992, he helped develop a gene "knockout" mouse model for cystic fibrosis.

Boucher

Proteomics and New Therapies for Cystic Fibrosis

The genomics revolution has afforded unparalleled opportunities to understand in detail the pathogenesis of human diseases and design and implement novel, revolutionary therapies. However, the genomics revolution requires that a sequence of "follow-on" technologies be developed.

As one example, it is important to understand the nature of the structure and function of the proteins that have been/will be identified as a function of the genomics revolution and, most importantly, to understand how they function in the context of living organisms. The field of "proteomics" consequently has evolved to provide investigators worldwide the capacity to measure the level of proteins expressed in individual human cells and, most importantly, understand how they interact with other proteins to perform normal cellular functions, and how they may function abnormally in disease processes.

Such knowledge is critical for developing novel therapies for the major lethal disease of white children in the United States, cystic fibrosis. In cystic fibrosis, the affected cells of the lung exhibit abnormalities that reflect the absence of the CF protein's (known as CFTR) function itself, and also the absence of important interactions with other cellular proteins. The identification of these interactions is key to developing therapies to "take up the slack" for missing CFTR-"other" cell protein interactions that are important for cell, organ-level and patient health.

Jeff Dangl, PhD, John N. Couch Professor of Biology

Dangl is a member of the curriculum in genetics at UNC. He received bachelor's degrees in biology and modern literature from Stanford in 1980. His doctoral work was in the genetics department at Stanford. Research in the Dangl lab is funded by the National Institutes of Health, the NSF, the U.S. Department of Energy, the U.S. Department of Agriculture and Syngenta. The Dangl lab collaborates with Syngenta researchers to understand how plants respond to pathogens, with the aim of engineering plants that can resist infection with less chemical input.

Romancing the Wild Mustard: Arabidopsis thaliana

During the week of Dec. 10, 1999, an international consortium announced that it had completed the first genome sequence of a higher plant. This small weed, Arabidopsis thaliana, according to a report in *Science*, could offer a window into the genetic makeup of all plants, including important crops. One scientist predicted that the genome sequence might lead to the development of crops better suited to developing countries, plants designed to soak up more carbon dioxide and other applications yet to be imagined.

The genome sequence produced by the consortium of six international sequencing teams on three continents pulled off a small coup. The sequence produced was more accurate than that of any multi-cellular organism published previously. Plants, it appears, might be much more complex than many biologists have imagined. Arabidopsis, it seems, has some 25,000 genes, compared with 13,600 in the fruit fly and an estimated 30,000 in humans. Moreover, Arabidopsis has homologues of many important human proteins involved in disease and cancer. Among these 100 disease-causing counterparts in humans are the genes involved in cystic fibrosis and breast cancer. Still, we have a long way to go: Nearly half of all Arabidopsis genes have unknown functions.

The National Science Foundation 2010 Project, a 10-year effort by the plant biology community, envisions that in a decade every gene in Arabidopsis will have been subjected to one or more experiments in which the gene is inactivated or over-expressed. The resulting phenotypes then will be examined by all available criteria. Gene-expressed proteins will be localized and comprehensive information made available as to how they are modified and, perhaps, interact.

Nurse Midwives Offe

By Eleanor Yates

Danielle Bowen wanted the birth of her child to be as simple and natural as possible. She had her own ideas about the delivery, and even drew up her own birth plan. But Bowen also liked the idea of having immediate access to skilled medical care should she need it.

She got the best of both worlds through the nurse-midwifery services offered through the School of Medicine's Department of Obstetrics and Gynecology, the only hospital-based midwifery program in the Triangle area.

Kathy Higgins, a certified nurse midwife, is director of the midwifery service at UNC. Besides providing extensive education and compassionate support to pregnant women, Higgins offers a variety of gynecologic care and support to women of all ages.

"I spend a lot of time with our patients, because I want them to make educated, informed choices," said Higgins. "I ask women what they want from the birthing experience. It's very family-centered care."

Higgins, who holds a master's of science degree from Georgetown University, served as a nurse, nurse-midwife and commander in the U.S. Air Force for many years. Among her career achievements was receiving the Bronze Star, awarded for her leadership under fire during Operation Desert Shield/Storm in 1991. She joined the UNC faculty to launch the midwifery service following her retirement from the military.

Although many people think midwives practice in people's homes, most of today's skilled certified nurse midwives practice within a variety of health care settings. Certified nurse midwives are delivering an increasing number of babies in the United States, currently about 7 percent of the births, compared to 1 percent just 10 years ago. There are about 7,000 certified nurse midwives in the country.

Certified nurse midwives are registered nurses who have undergone additional education and training in midwifery. They must pass a board examination given by the American College of Nurse Midwives Certification Council Inc. before they can practice health care.

Midwifery has a long, rich heritage. Hippocrates started the first documented, formal midwifery training program in the 5th century B.C. During colonial times in the United States, midwives were responsible for the care of pregnant women and, in the absence of physicians, often were the only healthcare providers for people in a community.

"The word 'midwife' means 'with woman,' and that's exactly how they support pregnancy," said Valerie Parisi, MD, chair of the department of obstetrics and gynecology. "Midwifery care is ideal for low-risk women who want a 'low tech-high touch' birthing experience offered within the safety of a hospital environment."

The department of obstetrics and gynecology began offering nurse midwifery services in 1999. The department of family practice also employs a nurse-midwife.

Currently, about 60 percent of the midwives' patients are pregnant. Other patients are seen for well-woman gynecologic care, including such things as annual physical exams, contraceptive counseling, preconception care, perimenopause and menopause management, and gynecologic infection treatment.

Certified nurse midwives see women who are basically healthy. Women with no medical problems and who have normal pregnancies are good candidates for nurse-midwifery care. Women with high-risk complications — such as bleeding disorders or heart trouble or who are pregnant with more than one baby — require care from an obstetrician.

In some cases, nurse-midwives will co-manage pregnancies with a physician. For example, a pregnant woman with stable diabetes can see a midwife and physician together, and be delivered by the midwife if no complications develop.

Early in a woman's pregnancy, Higgins spends time discussing issues such as breastfeeding and bonding with the baby, and believes it is crucial for patients to actively prepare for birth.

"In fact, I tell patients I'm not going to deliver the baby — they are," she said, smiling.

When delivery time draws near, Higgins keeps in constant contact with the mothers-to-be. If she foresees any problems, she consults with physicians.

Once a woman comes to the hospital for delivery, Higgins interacts frequently with her. Babies are born in the birthing rooms in the labor and delivery suite at UNC Hospitals. Higgins remains with her patient throughout labor and delivery, offering help and moral support, comfort measures and guidance throughout the entire birthing experience.

A nurse-midwife will maintain that an important part of her role is to advocate for patients, especially during challenging circumstances. Higgins described one situation in which a new mother wanted to breastfeed her premature infant while the baby was hospitalized in the neonatal intensive care unit. Higgins arranged for that to happen.

Bowen, who gave birth to her son, Gavin, last July, wanted to remain up-and-about as much as possible during her labor. She did not want an IV, an epidural or an episiotomy, and she wanted to hold her baby seconds after he was born.

As it turned out, Bowen was in labor for 26 hours, including 12 hours at the hospital.

"Kathy was very encouraging. She kept me in control," Bowen said. "She is very good at letting you push the limit, but knowing when to medically step in. You get the delivery you want, but your health and your baby's health come first."

UNC's nurse-midwives see patients during regular clinic hours at Chapel Hill North Medical Center and the UNC Ambulatory Care Center. One recent afternoon, Higgins met with a young woman who had never undergone a gynecologic exam.

"During these first exams, you really need to establish the trust factor," Higgins said.

Some patients have menstrual problems.

Full Spectrum of Care

Kathy Higgins, CNW, far left, chats with Mary Beth and Steven Braker about planning for a baby.

Others want to discuss birth control. Sometimes patients are so anxious that Higgins spends the entire appointment just talking and listening, asking them to return for the exam.

That same afternoon, another patient arrived for a six-week postpartum check-up. This patient, like many, brought along her new baby for "show and tell." Higgins was delighted to see the baby, but had plenty of questions for Mom.

"How are you adjusting to the baby?"

"How are the feedings going?"

"What do you want to do about birth control?"

About 10 percent of new mothers suffer from postpartum depression, and certified nurse midwives make sure they understand symptoms of the problem and when to seek help.

Clinic time also means reviewing lab results, checking pap smears or thyroid test results. While seeing patients in the clinic, midwives may consult with a psychologist, nutritionist or other specialist to help with a particular need. Midwives regularly advise women who want to become pregnant to start taking folic acid supplements and offer preconception counseling to identify and correct any existing problems before women become pregnant.

During an appointment with a patient nearing menopause, Higgins talked about the many changes a woman's body undergoes at that time.

"Sometimes you will feel like you're going crazy," Higgins said. "You'll be more emotional and wonder what's the matter with you, but it's all normal."

Assuring her patient that menopause doesn't mean suffering, Higgins discussed hormone replacement therapies, including natural and drug therapies, and emphasized the importance of exercise, vitamins and calcium. Because patients nearing menopause can become pregnant, Higgins also discussed birth-control methods.

When another patient visited the clinic after suffering several miscarriages, Higgins referred her to a physician to determine possible causes and a plan for conception.

Aimee Lehmann, who returned to the clinic for a six-week postpartum check-up, remembered being surprised that a certified nurse midwife was available through UNC Health Care.

"I wanted the least clinical birth as possible," she said. "I really think with midwives the experience is more patient- and family-centered. And I like the fact that you have a say in the process."

Lehmann also appreciated the continuity of care.

"From day one, I knew who was going to deliver my baby," she said, adding that she was grateful to have a certified nurse midwife in her room throughout her labor.

During her pregnancy, Lehmann learned she had a blood clotting disorder. Her certified nurse midwife worked closely with an obstetrician during her labor, and arranged for her to see a hematologist shortly after delivery.

Higgins helped Mary Beth Braker deliver her daughter, Annie. For eight months, Braker saw a traditional obstetrician.

"Our ideas for birth and the doctor's ideas were very different," Braker explained. "We really wanted a natural birth, and it looked like it would be hard to get that."

Braker then saw a pamphlet about UNC's Nurse Midwifery Services.

"Going with a certified nurse midwife was a huge relief," she said. "It's a different approach. Birth is a natural process and the body knows what to do. Kathy was there to facilitate the birth, but not to intervene unnecessarily."

Snapshots of Special Events

Family Gathering…

Honoring the contributions of Walter Reece Berryhill, MD, upon the anniversary of his 100th birth was truly a family affair. Norma Berryhill, wife of the late Berryhill, and family members were all smiles during the festivities which coincided with the annual Norma Berryhill Distinguished Lectureship. This year's speaker was George Sheldon, MD, Zack D. Owens distinguished professor of surgery and chair of the department of surgery.

Dance The Night Away!

More than 400 UNC students did just that Feb. 23 to raise oney for pediatric programs at the N.C. Children's Hospital. The Dance Marathon raised over $100,200 — a record in the event's three-year history. The event is organized solely by students.

2000 Nursing Recognition Awards...

Six outstanding nurses were recognized at the School of Medicine's biannual medical staff meeting by Dean Jeffrey L. Houpt, MD, and Stanley R. Mandel, MD, chief of staff. The awards, established in 1992, are designed to recognize outstanding achievement by nursing professionals. Honorees — who receive $1,000 to be applied toward professional development — are chosen based on their excellence in nursing practice, evidence of special qualities of caring and compassion, and commitment to teaching future health care professionals.

Winners are back row, from left, Houpt, Lynn Farber, pediatric surgery nurse clinician; Maria Vaslef, neurosurgery intensive care unit; Benjamin Butler, specializing in pediatric pulmonology; Front row, from left, Kate Little, supervisor of radiological nurses in the department of radiology; Clara Neyhart, nurse clinician in nephrology and hypertension; and Loree Farber, nurse education clinician, N.C. Jaycee Burn Center, and Mandel.

Faculty Notes

Timothy S. Carey, MD, professor of medicine and epidemiology, has been named director of the Cecil G. Sheps Center for Health Services Research. Carey replaces Gordon H. DeFriese, who served as the center's director since 1973.

Carey

A Sheps Center senior fellow and Carolina faculty member since 1986, Carey is interested in evidence-based medicine, access to care, and medical outcomes.

Several of his current research projects examine technology assessment, including the benefits and disadvantages of tube feedings for frail, elderly individuals. He is studying racial disparities in health for black adults, particularly in rural settings, and has conducted a number of studies to examine the outcomes of care for low back pain.

He is co-director of the joint Research Triangle Institute/UNC Evidence-Based Practice Center examining the strength of the literature on a variety of topics. Carey is currently the deputy director of the UNC Program on Health Outcomes.

The Sheps Center is one of the nation's oldest and largest health services research centers, encompassing an interdisciplinary program of research, consultation, technical assistance and training, focusing on the accessibility, adequacy, organization, cost and effectiveness of health care services.

Richard Clark, MD, professor of radiology, recently received a NIH-NIDDK contract to participate in a three-year multi-institutional study of analgesic nephropathy. He will be coordinating the CT evaluation of patients with this chronic renal disease with the goal of developing reliable CT screening criteria for its diagnosis. Assisting him in this project are David Warshauer, MD, Wendy Hayes, DO and research assistant Kathy Wilber, RT.

Tamera Coyne-Beasley, MD, MPH, assistant professor of pediatrics and internal medicine recently received a grant of $60,000 annually for five years from the William T. Grant Foundation through the Faculty Scholars Program. She was a University nominee for this international competition and is the first UNC physician to receive this award. The award will support her research on strategies utilizing youth to reduce firearm injuries among children and adolescents. She also received a four-year grant from the Robert Wood Johnson Foundation through the Minority Medical Faculty Development Program. This grant will support her research on the effectiveness of firearm safety counseling and safe storage.

Coyne-Beasley

Welcome Aboard! *School of Medicine Dean Jeffrey L. Houpt, MD, and faculty welcomed new department chairs during a reception held in their honor last November. Standing left to right are Travis Meredith, MD, department of ophthalmology; Marschall Rungee, MD, department of medicine; Alan Stiles, MD, department of pediatrics; Louis Diaz, MD, department of dermatology; Lee McLean, PhD, department of allied health; Terry Magnuson, PhD, department of genetics, and Houpt.*

Cherri Hobgood, MD, clinical assistant professor, department of emergency medicine, and director of undergraduate medical education has won the Robert Doherty teaching fellowship scholarship, presented by the Emergency Medicine Residents' Association. The scholarship is designed for junior faculty members who show outstanding promise as emergency medicine educators and who display a commitment to emergency medicine residents and medical students seeking careers in the field.

Hobgood

Beverly S. Mitchell, MD, chief of the division of hematology/oncology and associate director of the UNC Lineberger Comprehensive Cancer Center, has been named president of the American Society of Hematology. Mitchell is also the Wellcome distinguished professor of cancer research. Her research interests center around the ways to make leukemic cells more sensitive to treatment. Among her honors are the Jerome W. Conn Award for Excellence in Research, the Leukemia Society of America Stohlman Award and the H. Marvin Pollard Award for Outstanding Resident Teaching. She also served on several editorial boards, including the *Journal of Clinician Investigation* and on advisory boards to the National Cancer Institute, and the Leukemia and Lymphoma Society. The society promotes scientific and educational endeavors related to blood and blood-forming tissues, as well as encourages hematological investigations.

Mitchell

Pascal Osi Udekwu, MD, assistant professor of surgery, Wake AHEC, was selected for membership in the American Association for the Surgery of Trauma. He recently received the Harry E. Dascomb, MD, Award for Excellence in Clinical Teaching and Care which was presented at the Graduate Medical Education Recognition Dinner.

Etta Pisano, MD, professor of radiology, has been elected secretary-treasurer of the Association of University of Radiologists. She recently was appointed to the editorial board of the *Journal of Women's Imaging* and chaired a scientific panel on Breast Imaging at the Association of University Radiologists annual meeting.

Stiles' Style Makes

By Lynn Wooten

In a roundabout way, Alan D. Stiles, MD, credits his career in pediatrics to scuba diving.

The new chair of the Department of Pediatrics, Stiles grew up in Canton, N.C., an area rife with lakes — and, unfortunately, plenty of drownings and swimming accidents to keep the rescue squad there busy. Because Stiles' father was a member of the squad, young Alan often witnessed its members in action – including the time a diver taught rescuers about scuba to aid their efforts in recovering the bodies of drowning victims.

"I was fairly adventurous," Stiles remembered. "For someone in a small town, I had a great series of opportunities come up, such as scuba."

When he was about 10 years old, Stiles suited up with his dad and other rescuers and learned scuba diving. The experience unleashed an interest in marine biology and marine archaeology that led to diving jaunts in the Caribbean, stints as a part-time lifeguard with the YMCA and a youth camp counselor. The camp job, in particular, sparked a notion he had not yet considered: "You know, I wanted to have people in what I do." Acknowledging a long-recognized bent toward science, Stiles pondered a career in medicine. "This sort of brought it all together for me."

Stiles, a UNC undergraduate, applied to medical school on the "very last possible day you could." As he awaited word on whether he would enter the UNC School of Medicine — he was on the waiting list — he worked as an assistant in a UNC lab, basically washing dishes and doing other chores. He also married his high school sweetheart, Brenda.

Around 8:30 p.m. the evening before the next semester began, he heard from a mentor, William D. Heizer, MD, professor of medicine and nutrition. "I've been trying to track you down for two days," Heizer told him, adding that Stiles had made it into med school.

"After a few hasty phone calls, he was located and told the news, which seemed to please him considerably," Heizer recalled. "The fact that a person of his talent was almost not admitted to this medical school is just another indication of how difficult and humbling the job of medical school admissions is."

Stiles reported to his first day of class the next morning.

"I've never looked back at that since," Stiles said, 24 years after obtaining his MD at UNC, sitting in his office as the chair of UNC's Department of Pediatrics. His climb to this position was a long journey.

After medical school graduation, Stiles was a resident — then chief resident — in UNC's pediatrics department and remained at the University before going to Harvard Medical School to participate in the joint program in neonatology, its neonatal-perinatal program. A rotation in neonatology as a student at Wake Hospital in Raleigh was a good fit, as well. "I felt like I had walked into home," he said.

Alan D. Stiles, MD '77

Stiles returned to UNC in 1986 as an assistant professor in pediatrics.

"I really thought in medical school that I would become an internist," Stiles said. "But I found that I liked the people and the children and dealing with families and having a very serious public health impact by changing behaviors at such early stages. I also liked that pediatrics was very academic in nature."

His ascendancy to pediatrics chair last year was "unexpected," Stiles said. "It was not something I would have imagined at this point in my life."

Others, though, said it was an easy choice.

"He is always approachable — by phone, in person or before or after meetings, even those into the evening," said Marlene Rifkin, senior vice president and administrator of the N.C. Women's and Children's hospitals. "He listens, he counsels and he empathizes. He is a true leader for Children's, and we're delighted to have him at the helm."

Jacob Lohr, MD, vice chair of pediatrics, cited a number of Stiles' attributes. "He is keenly aware of the financial challenges fac-

Mark in Pediatrics

ing an academic department of pediatrics in the new millennium, and he is an unusually adept financial manager. These challenges have not diminished in his mind the importance of the department's basic academic missions."

Laboratory-based research has been a major part of Stiles' career. During his year as chief resident in pediatrics, Stiles worked with Joseph D'Ercole, MD, a member of the Pediatric Endocrine group at UNC, and began a career long interest in growth factors, small proteins that are active in signaling cells to divide and grow. During his neonatology fellowship at Harvard, Stiles was one of the first investigators to examine growth factors during fetal lung development.

Stiles has remained focused on questions related to lung growth and controls of cell division since because both are areas important to fetal and newborn health. He is strongly committed to research in pediatrics as a basic part of his new position. Although he doesn't have the same opportunity to personally work in the laboratory as before, he said, "I have inherited a faculty who are leaders in child health related research. Sustaining and fostering the research of the faculty and working toward establishing new faculty as successful investigators is one of my highest priorities."

Stiles has clear thoughts on the department now and how he sees it developing. "Pediatrics has always seen its mission as being a department that values its residents and training excellent generalist pediatricians. Most everything flows from there. Its second strength is its strong faculty. That's a legacy that I inherited here."

Stiles sees unlimited potential in the new N.C. Children's Hospital, which opens later this year. For the first time, UNC will have its pediatrics offerings conveniently located under one roof.

"It has been horribly disjointed," Stiles said. "My idea is 'seamless' for the kind of care that people get here if we do this right. I think we will use the springboard of the new facility to deal with very sick children and care for some subspecialty needs they have."

Lohr said he has noted Stiles' emphasis on this. "He understands the necessary balance between our tertiary level subspecialty clinical services and our hospital-based and community-based general pediatrics activities," Lohr said. Plus, he appreciates the necessity for family-based care in all these settings."

Within five years, Stiles predicted, the new Children's Hospital "will make us the site in children's health care needs across the state. And it will raise our profile nationally as a clinical facility — we don't have that national recognition yet. But I think we will."

Stiles examines an infant in the NICU during rounds.

Alan Stiles, MD
Chair, Department of Pediatrics

Age:	47
Wife:	Brenda
Children:	Justin, 24, now completing his master's in accounting at Appalachian State University; and Adam, 16, a junior at Chapel Hill High School
Education:	B.A. in Chemistry and Zoology, UNC, 1974; M.D., UNC, 1977

UNC-led Research Gets $15 Million Gift

The Bill & Melinda Gates Foundation has awarded $15.11 million to an international consortium of researchers, led by a UNC School of Medicine professor, to develop new drugs to fight African sleeping sickness and leishmaniasis — two diseases that are killing and infecting millions of people in developing nations.

The five-year grant brings together some of the world's top experts in drug development and delivery to target two common parasitic diseases: African trypanosomiasis, or sleeping sickness, and leishmaniasis.

Richard R. Tidwell, PhD, a professor in both the schools of medicine and pharmacy, is principal investigator for the project, which involves a consortium of more than a dozen faculty and scientists from Carolina, Georgia State University, the London School of Hygiene and Tropical Medicine, Ohio State University, the Swiss Tropical Institute, the Kenya Trypanosomiasis Research Institute and Immtech International, Inc.

"We are proud of the leadership role that Dr. Tidwell and his colleagues have been selected to play in the international battle against two insidious diseases that have caused so much pain, suffering and despair," said Chancellor James Moeser. "This generous grant will enable an impressive array of collaborators from academia, government and the private sector to conduct research that, through the successful development of new drug therapies, can dramatically improve people's lives."

The grant will fill a critical void in research funding for the two tropical diseases, Tidwell said.

"Although the pharmaceutical industry has made efforts to help fight these diseases by donating drugs and money, it cannot dedicate the research funds or technical resources necessary to search for new, more effective drugs," he said. "In the competitive marketplace, major pharmaceutical companies must concentrate on high-profile diseases with more potential for profits. This grant will create a world-class academic and scientific consortium that can do the job."

A key component of the consortium is Immtech, a Vernon Hills, Ill.-based biopharmaceutical firm that is already conducting clinical trials and would manufacture and distribute the new drugs to the affected nations, Tidwell said.

"Trypanosomiasis and leishmaniasis have a devastating impact on much of the developing world," said Gordon Perkin, director of the Global Health Program at the Bill & Melinda Gates Foundation. "New drugs are desperately needed and we're optimistic that this consortium will not only be able to develop them, but will ensure that they are distributed to those who are infected as quickly and efficiently as possible."

African sleeping sickness, which is fatal unless treated, spreads among people bitten by the tsetse fly. Symptoms begin with a low-grade fever, pain in the joints and itchy skin. Eventually, the parasites carrying the disease enter the brain. Then hallucinations and unpredictable, disruptive behavior are common. A victim experiences excruciating pain and eventually lapses into a coma before dying.

Leishmaniasis is caused by a parasite that can live in people, dogs and rodents. Spread by the bites of tiny sand flies, the disease causes lesions, severe disfigurement and, when the parasites invade internal organs, death. An estimated 12 million people in 88 countries worldwide have the disease. Most cases are reported in developing nations; the Sudan has been especially hard-hit with a recent outbreak.

The handful of drugs currently available to treat sleeping sickness has major drawbacks, including severe toxic side effects that can be fatal. Evidence also suggests that the disease is becoming increasingly resistant to melasoprol, the most commonly used drug. The few drugs available to treat leishmaniasis also produce adverse side effects and require extended dosage regimens. Drugs used to treat both diseases must be given by injection – a major problem in developing nations with severely limited access to health care.

The new grant will extend a decade of work by Tidwell and his colleagues. In 1990, their research supported by the National Institutes of Health showed that drugs synthesized to fight AIDS-related infections were effective against sleeping sickness and leishmaniasis. The discovery by Tidwell and David Boykin, PhD, of Georgia State University led to further experiments with a drug compound called DB 289. That compound allows medication to be orally absorbed and converted to an active state through the body's normal enzyme systems.

The UNC team developed and patented the compound, which the university has licensed to Immtech. The firm already has received approval to begin the first phase of human clinical trials for DB 289 as an anti-infective drug to treat pneumocystis carinnii pneumonia, an opportunistic fungal infection that is potentially fatal in immune-suppressed patients.

Besides Tidwell, other key UNC team members are James E. Hall, PhD, associate professor, School of Pharmacy; Gary Pollack, PhD, professor, School of Pharmacy, and John R. Seed, PhD, professor, School of Public Health.

Other consortium members include W. David Wilson, professor of chemistry at Georgia State University; Simon Croft, reader at the London School of Hygiene and Tropical Medicine and director of the World Health Organization's Tropical Disease Research Drug Discovery Project; Karl Werbovetz, assistant professor at Ohio State; Reto Brun, head of protozoology and chemotherapy, and Christian Burri, head of the pharmaceutical medicine unit, both of the Swiss Tropical Institute; as well as J. Mathu Ndung'u, director of the Kenya Trypanosomiasis Research Institute, and Raymond E. Mdachi, head of that institute's pharmacology division. □

School of Medicine boasts its own "Doogie Howser"

By Katie Macdonald

He's old enough to vote, but not old enough to drink. He can rent a movie, but he'll have to wait a few years before he can rent a car.

At 20, Anup Parikh is the youngest medical student currently enrolled at the University's School of Medicine. A 2000 UNC graduate with a bachelor of science degree in biostatistics from the School of Public Health, Parikh has gone straight on to his next endeavor, medicine.

"I always wanted to be a doctor," the first-year medical student said. "It's what I feel will be most rewarding and fulfilling devoting a life to."

Parikh, who was born in Charlotte, NC, is a first-generation American whose parents moved to the United States in the late seventies from Gujarat, India, to attend college. When he was still in grade school, his family moved to Fort Worth, Texas, but returned to Wilmington a few years later. Parikh, who was always a year younger than most of his classmates because his birthday fell at the end of the cut-off time for school enrollment, was able to skip the seventh grade when his family moved from Texas back to North Carolina. The school curriculum was slightly more advanced in Texas compared to North Carolina, and Parikh tested above the North Carolina students.

"Being younger has never made me feel different," insisted Parikh. "It's never been an issue with my friends or other people. I'm used to being younger than my classmates and they are used to me."

Parikh, who served on UNC's Honor Court as an undergraduate as well as on the University's Honors Program Advisory Board, comes from a long line of physicians. His uncles on his mother's side are all doctors in the U.S. His grandfather was also a doctor in India, and many summers he would visit him and spend time with him at his practice.

Anup Parikh

"It was fascinating to see him interact with the patients," said Parikh, who enjoys working with people opposed to working in a laboratory.

One of Parikh's favorite experiences in medical school has been participating in the AHEC program, which sends students to rural parts of North Carolina for a week to work in a private practice.

"It is such a rewarding experience," said Parikh. "Doctors will let you do patient interviews and sometimes even physical exams, and it really gets you pumped up and motivated."

Parikh's interests do not all revolve around medicine, though. For years he has played the piano and enjoys singing classical Indian music. Recently, he started learning how to play the harmonium, a type of organ, but says it's hard to find the time to practice.

"But it such a great stress relief when you can finally play," he said. "It's a nice escape from all the studying."

As an undergraduate at 16, he completed his degree in three years without attending summer school. Many of his advanced placement courses from high school transferred toward credit hours at UNC, as did some college courses he took at UNC-Wilmington while still in high school.

In college, Parikh chose to make his concentration in public health rather than major in one of the sciences because he knew he would eventually go to medical school, where he could focus more on science.

"I wanted a different perspective that would better prepare me for a future in medicine, and I like the collaboration between medicine and public health," said Parikh.

Parikh plans to get his master's in public health after his third year in medical school, when he can return to studying biostatistics or epidemiology. Meanwhile, his goal is to spend this summer in India doing clinical research in cardiology or ophthalmology, two medical fields in which he is strongly interested.

Ray Mitchell: He's

By Katie Macdonald

It's early on a Friday afternoon, and Stephen Ray Mitchell, MD is trying his best to get out of the office. He's not in a rush to see patients or attend to any pressing academic matters. Rather, he's under a deadline, set by his wife Ellen, to be home in time for a party they are hosting for her office.

"My wife works at Inter America Development Bank and there is a saying: It's better to have friends in the marketplace than money in the bank. We're working on that premise," Mitchell said with a chuckle.

Mitchell, School of Medicine class of '73, has a healthy sense of humor and an enviable capability to put perspective on his work and life. He has to, juggling his duties as an adult and pediatric rheumatologist, an academic leader and a husband with seven-year-old twins.

Last June, Georgetown University School of Medicine appointed Mitchell senior associate dean for academic affairs. His new post follows his seven-year tenure as Georgetown's program director in the internal medicine residency program and as the associate dean for clinical curriculum. Mitchell first began at Georgetown in the early 1980s after moving to Washington, D.C. with the United States Air Force.

Following a four-year medicine-pediatrics residency and co-chief residency at UNC Hospitals, Mitchell was commissioned to the Air Force and assigned to Andrew's Air Force base and the Uniformed University of Health Sciences in Washington. While in D.C., he completed a rheumatology fellowship at Georgetown, where he also discovered a passion for teaching. The academic medical setting had always intrigued him, learning under role models at UNC such as Newton Fisher, MD, Bill Blythe, MD, and Floyd Denny, MD.

Ray Mitchell, MD '73

As a physician and teacher at Georgetown, Mitchell has made his own, indelible mark. Georgetown's medical school, like UNC's, carries a long tradition of outstanding faculty, and Mitchell can count himself among the top faculty members. After receiving four Golden Apples, a student-sponsored award given to a physician faculty member,

Got the Beat

Mitchell was retired to the Golden Orchard; resting place for four-time recipients. He's also received housestaff teaching awards for his regular instruction of clinical teaching skills.

The former Tar Heel plans to inaugurate a $2.5 million Faculty Development Initiative this year that will reward excellent teachers, educate young faculty on new academic approaches and dedicate more time developing faculty in all the medical disciplines. He also takes great pride in leading the education of a diverse class of students, including orienting Duke students accepted to Georgetown's medical program. "I call it my rehabilitation project," he smiled. (He still catches grief for having a personalized Virginia license tag that says, "TAR HEEL.")

Naturally, his responsibilities and visionary plans make for a busy routine, and there comes a time when Mitchell needs to unwind and let loose. When he does, it is usually in his 18th century, colonial kitchen in Alexandria, Va. The kitchen is a special place to relax, not only because it's rich with nostalgia and history, but also because it's where Mitchell and his family keep their 1947 Wurlitzer jukebox, filled with Carolina beach music. Mitchell bought the jukebox from an old college friend, who for years kept it in the waiting room of his Charlotte, N.C., orthodontia practice.

"When I bought it, I told my wife it was not that big and could be tucked away in some closet," recalled Mitchell. "But it took four men to get it into the house, and then we had to leave it in the kitchen, where we have brick floors, so it wouldn't damage the wooden ones."

The jukebox gets a lot of play, especially on the weekends when friends come over or when twins, Katie and Mac, want to practice shagging. The twins have eclectic taste in music and have grown up appreciating dad's love of beach music.

"'Miss Grace' by The Thymes is a favorite song and anything by The Embers," said Mitchell, who loves to dance with his wife to The Embers' music.

When students or his children's friends come to the house and see the type of music Mitchell has chosen for his jukebox, they assume that beach music is an age-thing that personifies the difference between today's youth and the old fogies. But Mitchell doesn't agree. To him, beach music is a regional-thing and can be enjoyed by all ages. Growing up in Shelby, N.C., Mitchell always loved beach music, and spent his summers in Ocean Drive.

Mitchell continued to make his summer visits while attending UNC, first as an undergraduate, then as a medical student and finally as a resident in a combined medicine-pediatrics residency. UNC was one of the first academic medical centers in the country to offer a combined residency in those two fields.

Mitchell attributes his interest in pediatrics to his own pediatrician in Shelby, Paul Sarazen, MD, a Duke graduate. "But we'll forgive him for that," joked Mitchell. Some other role models that influenced him to consider a combined residency were Larry Kutchen, MD; Dale Newton, MD, and George Hemingway, MD, all UNC physicians who did combined training in medicine and pediatrics.

"The combined training gave breadth to my learning and captured the intensity of caring for sick adults and children," said Mitchell.

Now, living contentedly in Alexandria on, of all streets, Duke Street, Mitchell talks fondly of his twelve years spent in Chapel Hill.

"Chapel Hill is a very forgiving place," he said. "And my experience in medical school was great. We were very lucky to have the resources that were offered to us at UNC."

One place where Mitchell spent many hours as a medical student, and which he still considers today to be an excellent environment for learning, is Berryhill Hall. "The set-up in there is great for students because there are small study areas where smaller groups of students could work together and have a more intimate learning experience. I would love to have a set-up like that here at Georgetown."

And when Mitchell is feeling nostalgic for other fond Carolina memories, he just turns on his jukebox. "There is a standing invitation to all Tar Heels. I would love to see my Chapel Hill friends come through," he said. Now that they know where to go and what kind of entertainment to expect, they are sure to pay a visit.

Research Briefs

Genetically engineered enzyme boosts treatment for rare children's illness

U.S. medical scientists, working together, have found that a genetically engineered enzyme can significantly help children and young adults with a rare disorder that involves storage of materials within cells, resulting in the cells swelling to the point of bursting and killing those cells.

In its most severe form, the disease, mucopolysaccharidosis 1, causes progressive developmental delays, corneal clouding, lung obstructions, heart disease, severe joint stiffness and death, usually by age 10. In milder forms, known as Hurler-Scheie syndrome and Scheie syndrome, patients suffer many of the same medical problems, but they develop more slowly, and victims die by their 20s or live a nearly normal life span.

A report on the new study of 10 patients with intermediate disease, which documents the effectiveness of recombinant enzyme treatments, appears in the Jan. 18 issue of the *New England Journal of Medicine*. Authors include Joseph Muenzer, PhD, UNC associate professor of pediatrics, and 16 others.

"We gave patients back an enzyme called iduronidase that they were missing and that was made in the laboratory," Muenzer said. "We saw significant improvement in their ability to get around, they had more energy and their oversized liver and spleen shrank dramatically. Six patients we treated prior to puberty also showed an increased growth rate."

MPS 1 is a recessive disorder with an estimated incidence of one in 100,000. About one in every 200 to 300 people in the United States may carry the defective gene for MPS 1 so that when two carriers have children, about one in four of their offspring are born with the disorder. The most severe form, Hurler's syndrome, causes patients to die by age 4 or 5 on average.

"Until now, the only treatment alternative was bone marrow transplantation, and besides complications associated with transplantation, doctors can't find matching donors for all children who need one," Muenzer said.

Doctors gave the purified laboratory-generated enzyme to patients intravenously each week for a year and evaluated them extensively at six, 12, 26 and 52 weeks before analyzing and reporting their findings.

The researchers now are conducting a second study known as a Phase III, double-blind, placebo-controlled trial at six centers across North America and Europe.

The chief sponsor of the clinical trial was Biomarin Pharmaceutical, and it also was supported by the Ryan Foundation for MPS Children, the Harbor-UCLA General Clinical Research Center and UNC's General Clinical Research Center.

Researchers discover gene responsible for cilia, lungs' natural cleaning system

University of North Carolina at Chapel Hill scientists have discovered the human version of a gene and gene product that is an essential component of the tiny hair-like whips called cilia that cleanse the lungs. They did it by applying what is known about comparable structures in single-celled organisms that enable the tiny creatures to swim around in pond water.

Such novel work will help other researchers trying to understand and combat chronic lung diseases, scientists said.

The team used knowledge developed by cell biologists who have studied the cilia of sea urchins and single-celled animals for the past 40 years. To pinpoint the human gene, they combined that knowledge with information generated by international efforts to sequence the human genome — all genes in the body.

"It turns out that these structures are highly conserved, or repeated, in nature such that the cilia on a one-celled animal in a pond are very, very similar to the respiratory cilia in human airways," said William Reed, PhD, research assistant professor of pediatrics. "We relied on that high degree of similarity in structure and protein sequence to pull out a human relative of the animal gene."

The gene produces a large protein essential for generating forces that power the whip-like movement of cilia, Reed said. Besides identifying it, they also showed that the gene is "turned on" in cells as they begin growing cilia.

About 80 percent of epithelial cells in healthy human airways are ciliated, he said. They sweep mucous and trapped particles and disease-causing organisms into the throat where they are usually swallowed and eliminated.

Ciliated cells are injured and lost when flu viruses infect the lungs, for example. This reduces the ability of the lung to cleanse itself. Normal recovery involves regeneration of the ciliated cells by a repair process that is poorly understood.

The bottom line of the research is that — now that they have located a human gene "linked" to the appearance of ciliated cells — they have created a new way of following when ciliated cells appear in the lung, the scientist said.

"In chronic lung diseases such as asthma, the repair process can be slowed or halted," Reed said. "Expression of this gene can be used as a tool to understand the repair process and how it is interrupted in asthmatics."

The gene may also be useful to scientists studying a less common disorder called primary ciliary dyskinesia (PCD), he said. PCD patients' cilia do not move normally. Such people suffer chronic ear and lung infections and can require lung transplants.

A report on the finding appears in a recent issue of the *American Journal of Respiratory Cell and Molecular Biology*. Besides Reed, authors include Johnny L. Carson, PhD, Billie M. Moats-Staats, PhD, Ping-chuan Hu, PhD, Margaret W. Leigh, MD, and Albert M. Collier, MD of the departments of pediatrics and cell and developmental biology, the UNC Center for Environmental Medicine and Lung Biology and the Frank Porter Graham Child Development Center.

"This is an good example of the way information generated by the Human Genome Project and fundamental cell biology can be combined and translated into a human research setting," Reed said.

Special vaccines could prevent insulin-dependent diabetes

Results of a new University of North Carolina at Chapel Hill medical study suggest that vaccines can be made using plasmid DNA that would inhibit development of insulin-dependent diabetes, a growing health threat in the United States.

Plasmid DNA is circular genetic material obtained from bacteria. A chronic inflammatory disease, insulin-dependent diabetes, also called type I or juvenile onset diabetes, results from cells of the body's own immune system going awry and eventually killing other cells needed to produce insulin.

In their experiments, UNC researchers succeeded in preventing diabetes from starting in special laboratory mice that develop diabetes as they age. More importantly, the scientists say, they also halted progression of the illness in animals already affected.

" This work is very encouraging because it has the potential to be useful in clinical settings," said Roland Tisch, PhD, assistant professor of microbiology and immunology. "In the past, our group and others could manipulate the damaging auto-immune response in various animal models for type I diabetes but not in ways that would be readily feasible clinically."

A report on the research appears in the Feb. 1 issue of the *Journal of Immunology*.

"Recently, a Canadian group in Edmonton showed for the first time that islet beta cells — the cells in the pancreas that produce insulin — could be transplanted successfully in people with diabetes," Tisch said. "For more than a year, their patients have been free of insulin injections. A key issue, however, is that those individuals have had to take a cocktail of drugs that suppresses their immune systems, and they might have to continue taking it for the rest of their lives."

Such drugs are needed to prevent patients' immune systems from destroying the transplanted beta cells, the scientist said. But the compounds also could make recipients more susceptible to infectious diseases and cancers and produce other unknown but serious consequences when given over many years.

Tisch's group used genetic vaccines they created to re-establish the natural balance between two kinds of immune cells — Th1 cells and Th2 cells. When misbehaving, the former attacks the critical insulin-producing islet beta cells, while the latter normally keep the former from doing that. When Th2 cells fail to do their job, Th1 cells eventually lead to type I diabetes.

Working on the team with Tisch are Jenny Ting, PhD, professor of microbiology and immunology, and Jeffrey A. Frelinger, PhD, chair, of microbiology and immunology.

Study sheds new light on Lyme disease; findings shape vaccine development

New research on the tick-borne bacteria responsible for Lyme disease likely will make scientists think differently about how to develop a more effective vaccine, according to studies conducted at the University of North Carolina at Chapel Hill School of Medicine.

Just-published research findings put forward that as a tick feeds on its host, molecular changes occur on the outer surface of the Lyme bacteria Borrelia burgdorferi that are more complex than previously thought. During the tick's blood meal, its saliva transmits the bacteria to the host.

"Previous research showed there were certain surface proteins that were expressed in the tick gut and others that were expressed in the host, and that a switch occurred en route from the tick to the host. This paper shows us that things are a lot more complicated," said Aravinda M. de Silva, PhD, assistant professor of microbiology and immunology.

The findings were reported in the Jan. 16 issue of the *Proceedings of the National Academy of Sciences*.

Researchers said the findings are important because any effective vaccine must prime the immune system to mount an antibody attack against foreign antigens — the invader's outer surface proteins.

In their study, the researchers focused on two of the more than 150 membrane proteins known to be associated with B. burgdorferi: OspA and OspC.

"We wanted to see how these two proteins changed as the bacteria moved from the tick gut to the host," de Silva said. "And to our surprise, what we observed was not simply a matter of one protein being expressed in the gut and another being expressed in the host, as had been previously thought. During transmission, what the tick actually spits into the host is a bacteria population that is highly variable, compared to the fairly homogeneous population found in the tick before the blood meal."

In other words, four possible combinations exist for the two surface proteins. Some bacteria could express only OspA, some only OspC, some both and some neither.

"In fact, during the tick feeding process we found all four of these different combinations," de Silva said. Moreover, when the study team looked at another Borrelia surface gene called vlsE, it found a large number of variations generated during tick feeding, compared to only one or two when the tick was not feeding.

"We are excited by the findings because this once again supports the concept that arthropod vectors are not just flying or crawling syringes that go around inoculating bacteria," he said. "There's a developing biology going on inside this vector. The bacteria population essentially adapts during the transmission process to maximize the chance of infecting the host."

The research was supported by grants from the National Institutes of Health and the Arthritis Foundation.

Alan Briggaman Is A Winner, No Matter How You See It

By Pam Pearce

If you look at Robert Alan Briggaman, MD, through the eyes of a scientist you see an internationally-respected researcher who is an acknowledged authority on certain diseases. But if you look through the eyes of his colleagues, you see a physician known for strong leadership, with a special brand of camaraderie and sensitivity to patients' feelings.

No matter how you look at it, it's easy to see that Briggaman, this year's recipient of the H. Fleming Fuller Award, has made an important contribution to the world of dermatology. In fact, if you look through his eyes, you can see how he chose a career in dermatology.

"When I studied medicine, I enjoyed the visual aspects because my brain works that way," Briggaman said, who received his medical degree from New York University. "I see concepts and ideas as pictures, and dermatology seemed a natural for that. At the time I chose dermatology, it was based largely on a morphologic description of what you could see in front of you."

Robert Alan Briggaman, MD

Briggaman's accomplishments not only in dermatology but at the School of Medicine and the surrounding community garnered him the H. Fleming Fuller Award, given annually to a medical faculty member who exemplifies compassionate patient care and excellence in teaching. The Fuller Award is given in memory of the Kinston physician and longtime member of UNC Hospitals board of directors for whom it is named.

Since joining the faculty of the departments of medicine and dermatology in 1967, Briggaman has earned a reputation not only in the area of research but as a caring clinician, effective administrator and skilled teacher. "He is the quintessential, quadruple letter man says," said Luis Diaz, MD, dermatology chair, and Briggaman's successor. "He has set high standards but required nothing of anyone that he did not or could not do himself."

One gets a better picture of how high the standards were when looking back at Briggaman's accomplishments. He advanced from his first day of residency in 1964 to full professor in 1974 — a swift promotion. Papers he authored in the 1960s are widely cited as classics in the literature and some are still cited today, according to Clayton E. Wheeler, Jr., MD, dermatology chair emeritus. "This was great science in dermatology in the 1960s and 70s. It opened many doors," said Wheeler.

This was just the beginning of Briggaman's globally-respected research endeavors. An acknowledged world authority on the vesiculobullous diseases, he was an uninterrupted principal investigator of an National Institutes of Health grant from1972 until 2000. Among his numerous awards, the MERIT Award (Method to Extend Research in Time) from the NIH in 1990 is one of his treasured. "I was pleased to get the MERIT Award from the NIH," Briggaman said. "Not only does it give you 10 years of funding, it gives you validation as a researcher." Briggaman is slated to receive the Rothman Award from the Society for Investigative Dermatology, the highest award that is bestowed for research activities, later this year.

Briggaman's high standards also can be seen in the quality of his delivery of care to his patients. "He has been consistent in putting patients, their problems and management first, realizing and practicing that physicians at the School of Medicine are here to serve patients and not the reverse," Diaz said. As a result, many of his patients have requested his services and have been loyal to him over the years. Although Briggaman retired last year, he still sees patients once a week.

One might think that with his numerous awards, including the 1998 Distinguished Faculty Award, a man of his stature might intimidate a young resident just entering the field. Quite the contrary according to Darlyne Menscer, MD, past president of UNC's Medical Alumni Association. "He's the kind of teacher who residents describe as sensitive, caring and always available."

And, like the kind, compassionate, soft-spoken humble teacher his students describe, Briggaman credits his students. "I have been blessed with outstanding students and have been fortunate to teach students for the last 25 years who exceed the standards for the 'top of the line.'"

His strong leadership served as a source of guidance for residents and faculty as he served as chairman of the department from 1987 until his retirement. At Briggaman's chairmanship retirement dinner, Wheeler credited his time, energy and productivity for playing a large role in developing dermatology at UNC as a department that eventually became a "world-class operation." The strides taken under Briggaman's leadership and his commitment to research enabled him to recruit top faculty.

He's called North Carolina home since 1964. "I've spent my whole academic career here and I have loved it," Briggaman said. "I loved serving under Dr. Clayton Wheeler, the research I have done, the patients I have cared for and the students I have taught."

The way Briggaman sees it, he's had the "best job in the world." □

UNC Tests New Liver Dialysis Device

By Leslie H. Lang

The University of North Carolina at Chapel Hill is one of four medical centers nationally to study the effectiveness of a liver dialysis device for people whose damaged or failing livers have affected the brain.

The one-year randomized control study will look at the clinical and economic outcomes of liver disease patients who receive dialysis using the HemoTherapies Unit, as compared with patients who receive standard medical care.

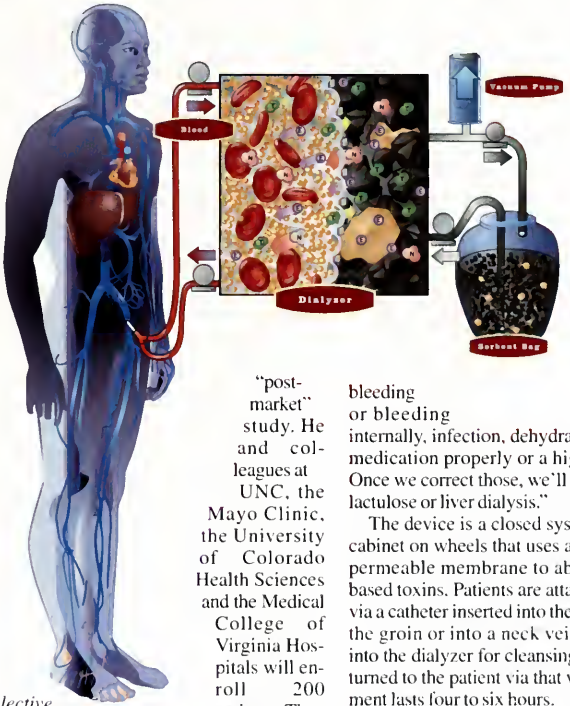
The device is the only liver-assist technology approved by the U.S. Food and Drug Administration for hospital-based liver dialysis for people with advanced liver disease, including those awaiting transplant. The manufacturer, HemoTherapies Inc. of San Diego, sees the device as a "bridge treatment" to help stabilize people awaiting liver transplant. The company also said the unit may postpone and possibly reduce the rate of fatalities associated with serious liver diseases such as hepatitis, cirrhosis, drug overdose and drug toxicity.

However, until now, the device's effectiveness had not been compared to standard care in a large number of cirrhotic patients who develop acute hepatic encephalopathy. This neurological disorder stems from toxins — mainly ammonia — arising from the gastrointestinal tract that bypass the damaged liver and go directly to the brain. There they can disrupt neurotransmitter function, causing mental deterioration, including coma.

Standard medical care for acute hepatic encephalopathy involves treating the patient with lactulose, a non-absorbable liquid that eliminates ammonia along with stool.

"Six out of 10 times, it relieves the encephalopathy. But if it doesn't work, we give antibiotics to eliminate ammonia-causing bacteria in the GI tract," said Roshan Shrestha, MD, associate professor of medicine and medical director of the liver transplantation program. Standard therapy takes about five days to work.

Shrestha is a principal investigator in this "post-market" study. He and colleagues at UNC, the Mayo Clinic, the University of Colorado Health Sciences and the Medical College of Virginia Hospitals will enroll 200 patients. They will be randomized to receive either three dialysis treatments or standard medical therapy. Researchers expect that many patients will be drawn from the liver transplant waiting list. All patients will have been diagnosed with at least stage 2 acute hepatic encephalopathy based on a scale of 0 to 4 wherein 0 equals normal and 4 equals coma.



Selective Removal/Addition of Molecules Across the Liver Dialysis Membrane

The study will compare the following endpoints: survival, bridge to transplantation, length of hospitalization and time in intensive care.

"First we'll look for and correct factors that can precipitate encephalopathy in thesechronic cirrhotic patients," Shrestha said. "These may include gastrointestinal bleeding or bleeding internally, infection, dehydration, not taking medication properly or a high protein diet. Once we correct those, we'll treat with either lactulose or liver dialysis."

The device is a closed system, a compact cabinet on wheels that uses a patented semipermeable membrane to absorb nitrogen-based toxins. Patients are attached to the unit via a catheter inserted into the femoral vein in the groin or into a neck vein. Blood flows into the dialyzer for cleansing and is then returned to the patient via that vein. Each treatment lasts four to six hours.

"So far, the anecdotal evidence for this indication looks pretty impressive. But we have to see for ourselves whether the device really works," Shrestha said. "The trial will continue for at least one year or until we enroll enough patients."

Shrestha's co-investigators at UNC are Michael W. Fried, MD, Jeffrey H. Fair, MD, and Steven L. Zacks, MD.

Each year, more than 25 million people in the United States are afflicted with liver and gallbladder disease and more than 26,000 die of chronic liver diseases and cirrhosis. There are 16,000 patients on the nation's liver transplant waiting lists, but only 5,000 livers are donated each year.

News Briefs

Seed Grants go toward innovative research, prevention projects

UNC's Lineberger Comprehensive Cancer Center has awarded nine Seed Grants worth $205,000 for new studies in cancer research.

The grants support new and growing UNC research projects in innovative areas. The grant program helps launch smaller projects that could lead to more in-depth studies in the future.

The grants were made possible by the Schechter Foundation, the Brody Brothers' Foundation and the Felix Harvey Foundation, all of Kinston; the Foundation for the Carolinas of Charlotte; the A.E. Finley Foundation Inc. of Raleigh; and the Cemala Foundation Inc. and the Hillsdale Fund Inc., both of Greensboro.

Newly-funded projects include:

• Valerie Murrah, DDS, MS, professor of diagnostic sciences, will study the effects of the use of smokeless tobacco and certain viruses as causes of oral cancer. While smoking is considered the primary cause for this type of cancer, smokeless tobacco and the virus known as human papillomavirus may also contribute to the development of oral cancer.

• David W. Ollila, MD, assistant professor of surgery, is studying the indicators for the spread of melanoma to the lymph nodes.

Doctors measure the thickness of most melanomas to predict whether they will spread.The thicker the melanoma, the more likely it is that it will spread to the lymph nodes. Thickness is not an absolute measure, however, so Ollila hopes to find better ways to predict if the melanoma will spread beyond the skin to lymph nodes or internal organs.

• Gary W. Reuther, PhD, postdoctoral fellow in pharmacology, proposes to study the causes of various types of leukemia by identifying oncogenes in the human body. Oncogenes are altered versions of normal genes, which can lead to the development of cancer. A new technique for identifying these altered genes has been developed, but it has yet to be extensively used with human cancer samples. Reuther hopes to use this new technique to identify oncogenes that are expressed in various leukemias, which may further the understanding of how leukemias develop and progress.

• Patricia Rivera, MD, assistant professor of medicine, will focus her research on the early detection of lung cancer. In Rivera's study, 100 patients at high risk of lung cancer will be evaluated using the Lung Imaging Fluorescent Endoscope, which detects pre-malignant bronchial lesions. Patients with abnormal lesions will continue the study with repeated LIFE bronchoscopies, allowing doctors to study the progression of these lesions, and they will also be interviewed to determine the relation of the lesion. Rivera hopes this study will lead to better lung cancer screening strategies and more rational assessments of the risk of development.

• Carol G. Shores, MD, assistant professor of surgery, is studying sentinel node biopsies in head and neck cancer. This technique for detecting the spread of cancer to regional lymph nodes and may reduce the need for more extensive neck surgeries. In addition, lymph nodes from patients who have head and neck cancer will be examined by a sensitive new test, which may detect small areas of cancer that would have been missed by standard examination.

• Jozef Spychala, PhD, research assistant professor of pharmacology, will concentrate on breast cancer studies, particularly on a function of a natural compound in the body known as adenosine. Spychala will explore whether adenosine may be released at high levels from more aggressive breast tumors, possibly helping the cancer to escape immune reaction and grow faster. If adenosine is released at high levels, doctors may be able to find a way to alter adenosine metabolism, neutralize its tumor-promoting functions and inhibit the growth of cancer cells.

• William K. Funkhouser, MD, PhD, assistant professor of pathology and laboratory medicine, will study cancers of the colon and rectum. When these types of cancers are hereditary, it has been shown that patients will often have defective mechanisms for the repair of DNA. Surprisingly, these patients often survive longer than those who have no family history of colon cancer.Some patients who have no family history of colon cancer also have the repair defect, and they, too, tend to live longer. Funkhouser plans to study colon cancer patients who do not have a family history of cancer to see how the presence or absence of the repair defect relates to factors such as patient survival, patient race and tumor growth.

• James R. Sorenson, PhD, professor of health behavior and health education, plans to study a new tool for aiding breast cancer patients in deciding whether to pursue genetic testing. Patients are often unclear on how their personal values and beliefs should enter into a testing decision. This research will develop a decision aid that will help women and their genetic counselors consider the role of the patient's personal values and beliefs in making a decision. If effective, the decision aid, which is a four-page questionnaire, should assist women in arriving at a decision that they can live with.

Number of primary care doctors statewide takes a dip

For the first time in four years, slightly fewer primary care physicians are practicing in North Carolina, a University of North Carolina at Chapel Hill report indicates. The total dropped by 16 doctors, from 6,380 in 1998 to 6,364 in 1999, a decline of 0.3 percent.

The decrease follows an 8.4 percent jump in such physicians between 1997 and 1998 and a 4.8 percent increase from 1996 to 1997, according to the Cecil G. Sheps Center for Health Services Research's 1999 N.C. Health Professions Data Book.

For 22 years, Sheps center staffers have compiled the data book as an annual report on health care practitioners in North Carolina. Primary care specialties are considered to be family practice, general practice, internal medicine, obstetrics gynecology and pediatrics. Of those, only family practice and pediatrics saw slight increases.

"Slowing of the growth of primary-care physicians in our state might just reflect a bump in the data given that the N.C. Medical Board has recently revised the way it issues licenses," said Thomas C. Ricketts, PhD,

MPH, deputy director of the Sheps center and associate professor of health policy and administration at the School of Public Health. "However, if it is real and reflects an emerging trend, we should worry about whether the state's primary care doctor supply is going to be able to keep up with its rapid population growth."

In contrast to the primary care physician supply, strong growth occurred in the state's nurse practitioner corps for the fifth year in a row, Ricketts said. The number of physician assistants also increased, reflecting a growth rate of 15 percent, from 1998 to 1999 and 46 percent since 1994. Additionally, the state's certified nurse midwife supply increased by more than 10 percent annually for the past four years, now standing at 153.

Since nurse practitioners, physician assistants and certified nurse midwives offer primary care, a relationship might exist between their rise and the small decline in primary care doctors, the researcher said.

The data system is funded by the North Carolina Area Health Education Centers and UNC's Office of the Provost. To order the 1999 edition of the data book, send an e-mail request to hp_data_coord@mail.schsr.unc.edu. County and region level data are available online at www.shepscenter.unc.edu/hp. A free pocket guide, "1999 Health Professions Supply by County," also is available.

Preventive Medicine Residency Program is Honored

The Preventive Medicine Residency Program in the UNC School of Medicine's department of social medicine has been awarded the 2000 Physician Training Award in Preventive Medicine from the American Cancer Society.

The four-year, $300,000 award will sponsor three residents to complete their training in preventive medicine. The grant aims to encourage and assist the development of promising individuals who will pursue careers in preventive medicine. One goal of the program is to create a cadre of academically oriented physicians trained in preventive medicine who have the potential to become leaders in research, education and intervention.

Through the program, the cancer society seeks to support physicians in accredited residency programs that will lead to eligibility for certification in preventive medicine.

During the two-year residency, the residents will pursue a master's degree in public health and participate in field training that will develop clinical and research skills in cancer prevention and control and complete a related research project.

UNC Health Care gets $300,000 to help prevent traffic-related injuries in Orange County

The Trauma Outreach and Injury Prevention Program has received a $300,000, three-year grant from the N.C. Governor's Highway Safety Program to target traffic-safety issues in the Orange County.

Michele Ziglar, RN, MSN, director of UNC's Trauma Outreach and Injury Prevention Program, wants to attack the "disease" of trauma by preventing pedestrian and bicycle injuries and car crashes.

According to research Ziglar compiled from UNC Hospitals' trauma registry and the Highway Safety Research Center at the University of North Carolina at Chapel Hill, car crashes in Orange County account for the highest percentage of patients — about 33 percent — admitted to UNC Hospitals because of injury. Pedestrian and bicyclist injuries and the occupant death rate from lightweight pickup truck crashes also are higher in Orange County than in the rest of North Carolina.

"There are several factors that contribute to injuries and deaths," Ziglar said. "Only about 53 percent of the children ages 12 or younger involved in car crashes are adequately restrained by child passenger safety devices. Other factors include speeding, alcohol use and aggressive driving."

The $300,000 grant will be used to establish and support a Safe Communities Coalition for Orange County. The goal of the Safe Communities Coalition is to decrease traffic-related injuries and their associated costs by using the expertise and energies of the involved community.

"Injuries are not accidents that just happen," Ziglar said. "They are, rather, predictable and preventable events that can be controlled with proven strategies. The Safe Communities concept works because it puts injury prevention into the hands of the people in the community – the people affected by the problem. When a community responds to an identified problem by joining its resources, a tremendous amount of work and change can occur."

AIDS physicians open clinic in Lumberton

Infectious disease experts at the University of North Carolina at Chapel Hill School of Medicine have started a new AIDS clinic at the Robeson County Health Department in Lumberton.

The clinic, open Mondays, will allow HIV-positive and AIDS patients to be treated near their homes instead of driving five or more hours to Chapel Hill and back.

"If you're a single mother, for example, who is infected with HIV, the virus that causes AIDS, you shouldn't have to drive so far for a 15-minute doctor's appointment, especially if you don't own a car," said Charles van der Horst, MD, professor of medicine and director of UNC's HIV/AIDS clinic. "Recently we discovered that 120 people, which represents 10 percent of the patients coming to our clinic in Chapel Hill, were from Robeson County, and so it's a big problem down there."

Robeson, one of North Carolina's poorest counties, is not among its most populous, he said. Still, it suffers one of the nation's highest sexually transmitted disease rates.

"Fifty percent of the syphilis cases in the United States are diagnosed in fewer than 30 counties," van der Horst said. A $100,000 grant from the N.C. Department of Health and Human Services, made possible by federal legislation known as the Ryan White Bill, will support clinic operations for a year, he said.

Each week, Dickens Theodore, MD, or Becky Stephenson, MD, of the department of medicine will accompany family nurse practitioner Laurie Frarey to Lumberton to see patients.

"This clinic, while a small and modest beginning, is really a landmark opportunity not only to provide compassionate humane care for those who are often marginalized on the fringes of society but also to help stop the spread of HIV," van der Horst said. "We hope that it will serve as a catalyst for local communities and medical centers to step forward and help out as well."

Diabetes Treatments Undergo Quiet Revolution

Between the 1950s and 1994, treatments for diabetes patients changed little, a leading physician says, but in the past five years, a quiet and highly beneficial revolution has taken place. Now patients can control their blood sugar levels far more precisely than in the past and dodge complications of the illness until late life.

"Pretty much every year since 1995 there's been a major to moderate advance in our drug treatment possibilities in diabetes," said John B. Buse, MD, associate professor of medicine at the University of North Carolina at Chapel Hill School of Medicine.

"There also have been great improvements in the old treatments as well — better drug delivery systems for the old sulfonylureas, better insulin delivery systems, better glucose monitoring and a greater understanding of the most appropriate doses to give," Buse said. "So diabetes treatment in 2001 is about as different as it could be from 1994, and that creates certain opportunities and challenges."

The greatest opportunity is that now just about everyone's diabetes can be controlled, but the therapies are expensive. Another challenge is that because most U.S. doctors finished their training before the advances occurred, many still are not yet up to date on them.

"Still another major challenge is that more than half the children who develop diabetes now have type 2, which classically developed in adults," he said. "Now, our children are often as overweight and sedentary as 50- and 60-year-old people of a generation ago. They are actually developing the middle-aged form of the disease."

Buse spoke in January at an American Medical Association briefing in New York at the New York Academy of Sciences. His talk, "New and Future Treatments of Hyperglycemia in Type 2 Diabetes," aimed to bring the new developments in diabetes care to the attention of other doctors and the general public.

"Recent clinical trials have shown that maintaining normal blood sugar can pay off in fewer complications," said Buse, who also directs UNC's Diabetes Care Center. "Among these complications are heart disease, peripheral vascular disease, stroke, nerve damage, eye problems and kidney disease in both type 2 and type 1 diabetes."

John B. Buse, MD

Drug improvements include:

- new sulfonylureas that stimulate the pancreas to produce more insulin.
- metformin, which improves the liver's natural response to insulin, which is to prevent excessive sugar release into the blood.
- alpha-glucosidase inhibitors, which function by slowing starch breakdown and thus delivery of sugars from the intestines to the bloodstream.
- megitinides, fast-acting, sulfonylurea-like compounds that also stimulate natural insulin production.
- thiazolidinediones, which are insulin sensitizers that allow insulin to be used more efficiently and promise to reduce heart risks associated with diabetes.

Insulin, generated by the pancreas in healthy people, supplements or replaces insulin in the blood to enable the body to metabolize sugars, Buse said. Its purpose is to signal the liver to stop making glucose. When insulin levels are low, the liver starts pumping glucose out and muscles and fat stop storing it so that the brain will get enough. When glucose levels fall, such as after exercise or not eating for prolonged periods, less insulin is needed.

"The body is really blind to what the level of glucose is, and so it needs the insulin signal to stop making glucose and to start storing it," he said. "The old techniques for artificial insulin delivery didn't allow us to match up things very well."

In type 1 diabetes, cells that make insulin are destroyed by a selective immune process. Treatment involves the best possible replacement of insulin production. New faster-acting insulin analogs created by recombinant DNA techniques behave more like the natural insulin that flows directly into the pancreas' portal vein and then throughout the body.

In type 2 diabetes two problems occur. One is that the body doesn't produce quite enough insulin, and the other is that the insulin that is generated doesn't work as well as it should in tissues that respond to it. Metformin improves the liver sensitivity to counteract that second problem, while other drugs boost production.

"The future of diabetes treatment is promising," Buse said. "This year we should get a new long-lasting insulin, a new short-acting insulin and several other drugs. The recent gains are just the beginning." □

Student Research Day

It was a day for dressing up. A day for wearing suits instead of scrubs for some students, or sweatpants and jeans for others. A day to look cool under the pressure of presenting months of research and hard work in front of a panel of prominent physicians and one Nobel Laureate.

On January 31, 52 School of Medicine students displayed their faculty-mentored research through slide and poster presentations at the John B. Graham Student Research Society's 33rd annual Student Research Day.

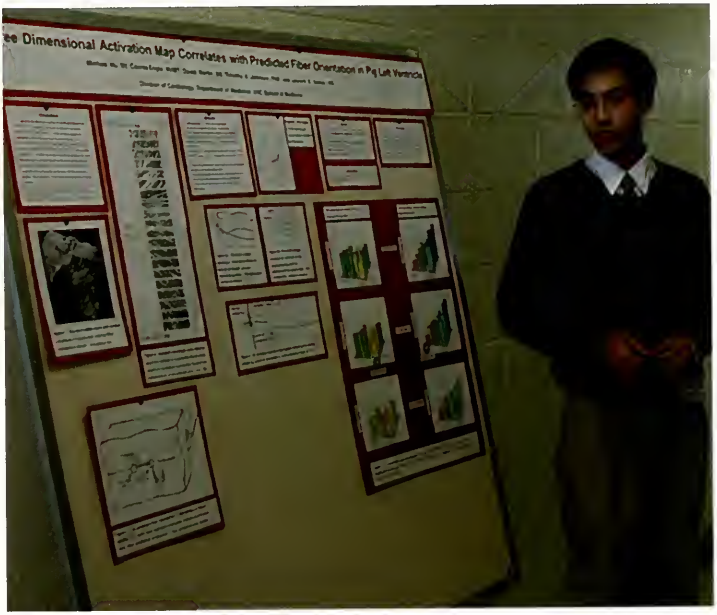
"It's a source of pride for them and the school," said Cheryl F. McCartney, MD, executive associate dean for medical education. "These students are making significant contributions to medical research."

Students, divided among a group of slide presenters and four groups of poster presenters, exhibited their research in front of a panel of physicians and faculty members, who judged them and then awarded students from each of the groups. Research topics included hybrid total hip arthroplasty, inborn errors of metabolism and mutant Epstein-Barr virus.

Eight students were presented with the Michiko Kuno Award at a banquet following the presentations. The Scott Neil Schwirk Fellowship also was awarded to Adam Zanation, class 2002, who created a slide presentation of a three-dimensional raft modeling of human head and neck squamous cell carcinoma.

One of the biggest highlights of the day was the opening lecture by Nobel Laureate Joseph Murray, MD, who gave the Ralph R. Landes Lecture on "The Joy of Caring."

Murray, is emeritus professor of surgery, Harvard Medical School, and chief of plastic surgery at Brigham and Women's Hospital and at Children's Hospital Medical Center in Boston. One of Murray's greatest achievements was to perform the first successful human kidney transplant in 1954. Murray received the Nobel Prize in Medicine in 1990 for his discoveries concerning organ and cell transplantation in the treatment of human disease.



Second-year student Michael Wu presented his poster display of a three-dimensional activation map correlating with predicted fiber orientation in a pig's left ventricle in front of a panel of judges.

Michiko Kuno Award winners:

Patrick C. Hines, class 2000, slide presentation: "Intracellular cyclic AMP promotes sickle RBC aggregation and adhesion to laminin"

Read Pukkila-Worley, class 2003, poster presentation: "The cryptococcus neoformans adenylate cyclase (CCAC1) gene regulates pathogenicity and mating"

Hoke W. Pollock, class 2002, poster presentation: "Turning to changes in ineraural time differences in the auditory cortex of the unanesthetized rabbit"

Rhonda Vestal, class 2002, poster presentation: "The effect of rapacuronium on the subsequent neuromuscular effect of cisatracurium or rocuronium in elderly surgical patients"

Brad Anglemeyer, class 2003, poster presentation: "Accuracy of weight estimation by emergency medical personnel"

Peter C. Nichols, class 2003, poster presentation: "Portal image registration using normalized mutual information"

Dalton McLean, class 2003, slide presentation: "Analysis of second-site mutations restoring the function of the gonococcal hemoglobin receptor"

Scientists Bypass Major Hurdle to Aid Hemophilia

By Leslie H. Lang

For the first time, scientists at the University of North Carolina at Chapel Hill have used a gene-therapy technique in animals to continually produce very high amounts of a clotting protein similar to that lacking in people with hemophilia.

A lack of this protein, known as factor IX, occurs in hemophilia type B. If human gene therapy studies could yield sustained factor IX production in high amounts, then hemophilia patients would not need daily injections of the protein.

The new findings, reported in a recent issue of Molecular Therapy, also indicate that the gene-therapy method used in the study may be applied to hemophilia A, the more common form of the disease. The report concludes that the approach "may be useful for the treatment of a wide variety of inherited diseases."

In animal experiments at Carolina and elsewhere in recent years, the method used a genetically engineered virus called AAV to infect cells and thereby deliver a cloned gene into an animal's body. Previous studies used only type 2 of six known AAV serotypes, each of which differ in their protein wrapper. This time, however, the Carolina researchers tried five of the six, comparing factor IX production of AAV types 1, 3, 4 and 5 with that of type 2.

The results were startling.

"Surprisingly and unexpectedly, we found the mice were producing amounts of this factor 100 to a thousand times more than we've observed before," said senior study author Dr. Christopher E. Walsh, assistant professor of medicine at the UNC-CH School of Medicine and clinical director of the university's Gene Therapy Center.

"The purpose of this experiment was to see if we could generate very high protein production long-term," he added. "These mice are now six months out and factor IX levels have remained very high with no problems."

The mice studied were genetically bred to have deficient immune system cells. They were selected because the clotting protein coded by the transferred gene was canine factor IX. In normal mice, the immune system would mount a destructive attack against the protein.

In previous experiments, UNC gene therapy researchers studied dogs with hemophilia B, which resembles the disease in humans. They gave recombinant AAV carrying canine factor IX to the dogs via direct intramuscular injections — similar to immunization shots, such as tetanus. In two dogs, a simple clotting test determined the gene was working, making protein in the muscle that circulated in the blood. The animals also were at reduced risk of bleeding. However, the amount of protein produced represented 2 percent to 4 percent of the normal amount of factor IX in the blood both for dogs and humans.

"Our new research bypasses a major hurdle in gene therapy for hemophilia, but it also represents the beginning of a long series of experiments," Walsh said. "We know that the one particular virus we've used for years now works in mice, rabbits, dogs and primates. So since these are just slightly different variants, the assumption is they should work the same way.

"And if in fact you can generate significantly more protein, into the more therapeutic ranges, and without the immune system seeing it as foreign, then you could conceivably correct the disease."

While the UNC research demonstrates that the approach works in muscle tissue, might it also work in other organs, the brain, liver, or kidney, for instance?

"My suspicion is the answer is 'yes,'" Walsh said. "By changing a few proteins on the surface, we can now direct these viruses to places where we didn't think they could go before and produce a lot of protein. You may be able to replace factor IX with fill-in-the-blank, whatever the body needs."

The gene therapy team is studying animals with active immune systems, using the AAV variants to deliver the gene for canine factor IX into dogs.

"It's the results of these studies that the U.S. Food and Drug Administration will use as a benchmark for determining whether or not clinical trials are warranted," said co-author Richard J. Samulski, PhD, professor of pharmacology and director of the Gene Therapy Center. "I think we'll generate more functional protein than is needed clinically."

Besides Walsh and Samulski, study co-authors include Gene Therapy Center postdoctoral research associates Hengjun Chao, PhD, principal author; Yaunbo Liu, PhD, Joseph Rabinowitz, PhD, and Chengwen Li, PhD. The research is funded by grants from the National Institutes of Health.

Hemophilia B, a hereditary bleeding disease, affects more than 4,000 U.S. residents. The disease affects males and results in bleeding principally in muscles and joints. However, internal bleeding, especially in the brain, can lead to death. Treatment for the disease involves intravenous injections of blood products or, more recently, purified factor IX. Traditional transfusion treatment improves symptoms but fails to cure. □

Development Notes

Bob Timberlake prints benefit pediatrics programs

Pediatrics programs at the North Carolina Children's Hospital are about to benefit from the sale of Bob Timberlake reproductions that depict the late CBS newsman Charles Kuralt.

The reproduction, entitled "Kuralt at White's Creek," features Kuralt fly fishing in a mountain stream.

"We get rights to sell as many reproductions as we can between March 12 and June 16," said Jake Lohr, MD, associate chair of pediatrics. The Medical Foundation of North Carolina, Inc. and The Educational Foundation are selling the reproduction. A substantial portion of the proceeds will go to pediatrics.

Lohr and Timberlake have a long history. Both men grew up in Lexington, NC, and have been friends since childhood. "Bob is an incredibly generous man with a track record of a special benevolence toward children," Lohr said. "The medical programs of the Children's Hospital will greatly benefit from his generosity, and we are most appreciative."

Kuralt, who attended UNC's School of Journalism, died of complications from lupus in 1997.

"Kuralt at White's Creek" is to be unveiled during a gala Timberlake art exhibit April 28 at UNC's new Eddie Smith Field House. Sales of the reproductions, which will retail for $250, began March 12.

For more information on how to purchase the reproduction, contact Riverwood Hall Publishing at (888) 307-7868 or visit the company's Web site at www.riverwood hall.com.

April 20 is due date for Class Campaign Gifts

Ten Class Campaigns are well underway with 150+ medical alumni volunteers raising funds from their classmates in honor of their Reunions. The Progress Report below is through February 1, 2001. Remember that Reunion Campaign results will be announced at the Spring Medical Alumni Banquet Friday, April 27. Members of all reuniting classes are encouraged to be in Chapel Hill to celebrate the results with their classmates.

All medical alumni who have not yet made a gift are encouraged to do so by April 20 to count in the results to be announced at Spring Medical Alumni Weekend. Contact Stephanie Stadler (Stephanie_Stadler@med.unc.edu) or Brent Thomas (Brent_Thomas@unc.edu) or call (800) 962-2543 if you would like to make a credit card gift. You may also visit www.unc.edu and click on "For Alumni and Friends" to make a gift.

LOYALTY FUND

CLASS	COMMITMENTS & % PARTICIPATION	ASSOCIATES ($1,000+)	TOTAL CASH & PLEDGES
1946	16/27 (59%)	3	$6,700
1951	14/37 (38%)	1	$8,900
1956	19/50 (38%)	9	$17,700
1961	30/51 (59%)	3	$8,000
1966	28/64 (44%)	7	$116,150
1971	21/70 (30%)	6	$12,500
1976	36/116 (31%)	14	$37,500
1981	37/159 (23%)	8	$16,500
1986	27/146 (19%)	8	$10,500
1991	24/145 (17%)	3	$7,500

Miller quintuplets paint tiles for N.C. Children's Hospital

The Miller quintuplets, the state's first set of quints, have painted ceramic tiles that will be permanently installed in a huge wall of tiles in the new N.C. Children's Hospital, set to open later this year.

The Miller babies — Emery Elise, Grace Caroline, Helen Marie ("Ellie"), Marguerite Jackson ("Maggie") and Martin Thomas — were born July 9, 1998, at UNC Hospitals. They are the children of Kent and Nancy Miller of Wake Forest. Their oldest child is Anna Elizabeth, 4.

The tile-painting endeavor, Hands and Heels for Hope, is co-sponsored by Paint the Earth, a paint-it-yourself ceramic studio, and The Medical Foundation of North Carolina Inc., the fund-raising arm of the N.C. Children's Hospital. Through Hands and Heels for Hope, artists can paint 6-inch square tiles that will be permanently mounted in the new N.C. Children's Hospital building. The cost is $25 for one tile or $40 for two tiles. Proceeds benefit the N.C. Children's Hospital. Paint the Earth donates all tiles, supplies and glaze and fires the finished works. A gala dedication of the new N.C. Children's Hospital and the N.C. Women's Hospital takes place Sept. 8.

2001 Dean's Receptions

More than 500 alumni, parents and friends of the School of Medicine attended the Dean's Receptions held throughout North Carolina and hosted by Dean Jeffrey L. Houpt, MD.

Reception attendees were updated on recent happenings at the School of Medicine and had an opportunity to talk with one another and faculty members. The receptions also served as a kick-off for the annual Loyalty Fund Campaigns held in these counties.

Receptions were held this year in Buncombe, Durham/Orange, Guilford, Mecklenburg, New Hanover and Wake counties. Plans are underway now for 2001-02 receptions in Forsyth and Guilford counties and Atlanta.

Gary Park, left, the new president of Rex Healthcare, talks with Robert Bashford, MD, Medical Alumni Distinguished Teaching Professor at a donor reception in Raleigh in February.

From left: H. Clifton Patterson, MD '74, Co-Chair Wake County Loyalty Fund Campaign; Gordon B. LeGrand, MD '65, former president, Medical Alumni Association; Judy LeGrand and Laura Patterson

From left: Diane and Vartan A. Davidian, MD '67; Sarah Ellen and Joseph P. Archie, Jr., MD '68

Alumni Notes

40s

G. Walker Blair, Jr., MD '45, lost his beloved wife of 48 years, Sara Jo in 1996. He married Francis in 1998 and writes "she is putting up with me remarkably well." The couple resides in Burlington, NC.

George Robert "Bob" Clutts, MD '45, and wife Sue have three children and three grandchildren. He enjoys tennis, fishing and farming.

Weldon Huske Jordan, MD '45, and his wife Mary Lynn live in Fayetteville, NC. He serves as a trustee of Cape Fear Valley Health Foundation. All four of their sons became doctors; three of them graduated from UNC.

Dean Winn, MD '45, enjoys golf, photography, traveling, RVing and visiting his grandchildren. His Parkinson's Disease has progressed slowly over the last 10 years.

50s

Gertrude A. Bales, MD '50, resides in Rochester, NY. She enjoys volunteering for Habitat for Humanity, golfing, grandmothering and restoring and designing stained glass.

Elwood B. Coley, MD '50, is now working two mornings each week at Lumberton (NC) Children's Clinic. He enjoys gardening, traveling and spending time with his children and grandchildren.

Andrew M. Diggs, MD '50, volunteers at a clinic seeing patients one to two days a week. He is also working on a book regarding "Educational Concepts." Along with his wife Elizabeth, the couple has three children and four grandchildren. They reside in Palm City, FL.

Buel K. Grow, Jr., MD '50, lives in Belle Mead, NJ with his wife Anne. He enjoys watching his seven grandchildren grow up, keeping up with the world, sports, reading, music, walking, and occasionally sailing. He plans on taking up kayaking this spring.

Henry (Hank) L. Stephenson, Jr., MD '55, retired two years ago. Since then, he has been trying to keep up with his three sons, their wives and six grandchildren. Along with his wife Frances, he has visited Israel, Eastern Europe, Scotland, and Ireland.

60s

C.P. Eldridge Jr., MD '60, recently retired from the Radiologist and Diagnostic Clinic of Houston. He had worked at the clinic since 1966.

Ralph L. Bentley, MD '60, is the chairman of the board at Piedmont Healthcare, a 75-member multi-specialty group. He also serves as the director of Piedmont Bank and is on the board of directors at Gardner Webb University, Mitchell Community College and Davis Community Hospital. He resides in Statesville, NC, with his wife Caroline.

J. Thomas Fox, Jr., MD '60, moved to Valle Crucis, NC, from Charlotte with his wife Landor after his retirement. They enjoy outdoor activities, traveling, reading and spending time with grandchildren. He writes that both he and his wife remain in good health and feel very fortunate to be able to enjoy a comfortable and happy lifestyle.

Duncan S. Owen, Jr., MD '60, recently retired and is now focusing his attention on reading, fishing, hunting and traveling. He and his wife Irene have three children and welcomed their first grandchild, Duncan S. Owen IV in September 1999.

Evin H. Sides III, MD '65, retired from a private practice two years ago. He is now working part-time on medical services at Dorothea Dix Hospital in Raleigh, N.C. as an attending for UNC psychiatry residents who are serving four months on medical services. During his time off, he enjoys flying, boating, golfing and traveling.

70s

Bruce C. Becker II, MD '79, recently achieved status as a certified physician executive and fellow in the American College of Physician Executives. He is the vice president of medical affairs, education and research and he resides in Bartlett, IL.

80s

Lauren Cosgrove, MD '80, is the chief of her family medical center in Rockville, MD. The center recently won Kaiser Permanente's National Diversity Award for its creation of a Spanish-centered wing that provides better health care to Hispanic patients.

Kenneth Hollingsworth, MD '80, recently retired from the US Navy. He is now in private practice as a staff anesthesiologist at Nanticoke Memorial Hospital in Seaford, DE. Married to Stacey La Motta, the couple welcomed the arrival of a daughter, Brook Noelle Hollingsworth, on Dec. 27, 2000.

Wells Edmundson, MD '80, is the medical director of Springmoor Retirement Community. In his spare time, Wells enjoys following his daughter Erin's soccer career and son Brian's USTA tennis. You can reach him at pc_bulldog@yahoo.com.

Mary Korytkowski, MD '82, has two teenage children and holds the position of associate professor at the University of Pittsburgh School of Medicine. She has been at the school for approximately 12 years.

Paula Kreitler, MD '82, is a pediatric endocrinologist at Schneider Children's Hospital in Long, Island, NY. Along with her husband Harry and daughter Rebecca, she recently welcomed the arrival of new daughter Elizabeth. Email her at kreitzer@lij.edu.

Joanne Dykas Cameron, MD '85, has practiced emergency medicine for the past 10 years. Joanne met "the man of her dreams," David Cameron, and got married in 1996. The couple lives in Mattapoisett, MA. You can reach her at jdcamdoc@aol.com.

90s

Dan Meulenberg, MD, '90, lives in Sandpoint, ID with his wife Lori and their two daughters, Sophia, 7 and Jennie, 5. He loves to hike, camp, bike, ski and garden. Email him at dmeulen@micron.net.

Jill Obremskey, MD '90, is excited to be back in North Carolina. She lives in Cary with her husband William Obremskey, MD, and their children Alexander, 6, Nicholas, 4 and Analise, 2. Email her at bjobremsk@aol.com.

Jerry L. Price, MD '90, is building a brand new home in the mountains of Mayville, TN with wife Phyllis and daughter Keri. He also likes to go kayaking, mountain biking and hiking. You can reach him at j-p-price@mindspring.com.

Angela R. Scott, MD, '90, is currently living in Salt Lake City, UT while her husband Walter Scott, MD completes his fellowship in CT surgery. She works part-time at the University of Utah in general ophthalmology. She hopes to return to the East Coast this summer. You can reach her at angela.scott@mindspring.com.

Ami J. Shah, MD '90, is the clinical director of Outpatient Services, Division of Immunology/Bone Marrow Transplant at the Children's Hospital of Los Angeles. You can reach her at ashah@chla.usc.edu.

J. Todd Williams, MD '90, has his own dermatology practice in Asheboro, NC, where he is involved in church and youth coaching activities. He and his wife Denise have four children: Jamey, 7, Josiah, 5, Caleb, 2, and Wesley, two months. Email him at todd@atomic.net.

Michael Kilby, MD '90, lives in Alabama with his wife, Mia Kilby, MD '90, and their two sons. He is an assistant professor at the University of Alabama and is an advisor for medical students. His research emphasis is HIV pathogenesis and immunology. This year, he will teach an honors seminar on "Medicine and Society in American Film," which is directly related to his continued addiction to movies. You can reach him at mkilby@uab.edu.

Evan H. Black, MD '94, is an assistant professor of ophthalmology at Wayne State University. He is the director of Ophthalmic Plastic Surgery and Orbital Disease Section at Kresge Eye Institute and resides in Royal Oak, MI.

Raymond Carroll, MD '96, is the chief resident of orthopedic surgery at Georgetown University. Raymond and his wife Jennifer welcomed their daughters, Lucy and Lila on Dec. 10, 2000. Next year, he will complete a fellowship in shoulder and elbow surgery at Columbia-Presbyterian Hospital in New York City.

Ibrez Bandukwala, MD '97, is a faculty member of the Emory University Hospital department of medicine. In October 2000, Bandukwala married Claire Parker, MD '97 who is currently a fourth year resident in OB/GYN at Emory University Hospital.

Deaths

Edwin A Rasberry, MD '39
H. Lee Large, MD '40
Stanley W. Chernish, MD '45
George Gentry, Jr., MD '59
William J. Murray, MD '62

President's Letter

A Joy and a Privilege

It was a Tuesday night in early February and the office had been rough that day. On call for six physicians, my beeper had been unusually quiet as I prepared for bed and dared to hope that I could slip through the next nine hours untouched. But it was also my monthly twenty-four hours of ER service call, so I forced myself to be realistic about my prospects. At 2 a.m., the all-too-predictable occurred. Sleeping far below the surface, my rest was uninterrupted until the beeper had chirped through its full sequence of pulses and my wife, Diane, finally roused me with a vigorous shake.

Upon arrival in the ER, the scene was busy and loud, and the blinding fluorescent lights woke up the other half of me that was still clinging to its resting mode. The patient, an 84-year-old gentleman from Baltimore, was visiting his grandson in Clinton and had no local doctor. He was quite ill with an oral temperature of 103.5, a respiratory rate of 36, and delirium. The only useful history came from his grandson who reported that the patient had been hospitalized at Johns Hopkins one week prior where "they weren't able to figure out the source of his fever." Worse still, the ER doctor said the patient had become much sicker during his five hours in the department. With my new patient critically ill and his daughter en route from New York — she was an RN who'd already expressed her preference for helicopter transfer to Duke — it was plainly evident that I would need to recruit my full complement of neurons to manage the patient and his family smoothly.

"It's been a joy and a privilege," I muttered around 5 a.m. as I wrapped up my admit orders and stumbled out of the ER to claim for myself what remained of the night. The sarcasm wasn't lost on the several nurses standing within earshot.

A day later, after some rest and full sunlight, I had settled back into the view that I know to be true: It really *is* a joy and it really *is* a privilege to live the life of a physician. Our patients count on us to step into difficult situations and bring order from chaos, to make the diagnosis, to render proper care, and to comfort the family.

A joy and a privilege. So it has been during this year as Medical Alumni Association president. I have thoroughly enjoyed representing the MAA at a variety of student and alumni events. With my feelings of loyalty running even more deeply after these experiences, I look ahead to further involvement in the future. Let us all find ways to return a portion of our resources to UNC, making our school stronger for those who are to follow behind us.

With warm regards,

Paul E. Viser, MD '84

CME/Alumni Calendar

April 8-12, 2001 – Waikoloa, Hawaii
Breast Imaging: Digital Mammography Update '01

April 10, 2001 – Chapel Hill
Emergency Medicine Research Forum

April 27-28, 2001 – Chapel Hill
UNC Medical Alumni Association Spring Weekend

May 5-6, 2001 – Blowing Rock, NC
16th Annual Meeting of the Glomerular Disease Collaborative

May 20, 2001 – Chapel Hill
Graduation

May 9-13, 2001 – Chapel Hill
Application of Molecular and Diagnostic Medicine

May 24-25, 2001 – Chapel Hill
22nd Annual TEACCH Conference: Educating Students with Autism

June 9, 2001 – Chapel Hill
Medicolegal Seminar 2001

June 14-17, 2001 – Boca Raton Resort & Club, FL
Carolina Refresher Lectures: Care of the Surgical Patient

June 25-28, 2001 – Kaiwah Island, SC
Breast Imaging: Digital Mammography Update '01

For more information about CME courses, contact the Office of Continuing Medical Education, (919) 962-2118, or toll-free through the Consultation Center, (800) 862-6264. To contact the Alumni Affairs office, call (919) 962-6786 or e-mail medical_alumni@med.unc.edu.

Estate Planning Notice

Many individuals would like to make a major gift to the UNC medical center, but cannot commit current assets for such a purpose. Through a will, however, anyone can make a more significant gift than they might ever have thought possible by designating a specific sum, a percentage, or the residue of their estate for the benefit of the medical center.

To provide a bequest, simply include a paragraph in your will naming The Medical Foundation of North Carolina, Inc. as a beneficiary. For example:

"I give, devise and bequeath (the sum of $_____) or (_____% of my estate) or (the residue of my estate) to The Medical Foundation of North Carolina, Inc., a 501(C)(3) created to maintain funds for the UNC medical center with principal offices located at 880 Airport Road, Chapel Hill, North Carolina."

This language creates an unrestricted bequest for use by the medical center when and where the need is greatest, or you may specify that your gift be used for a particular purpose.

For further information on bequests, contact Jane McNeer at (919) 966-1201, (800) 962-2543, or jmcneer@email.unc.edu.

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Summer 2001

Medical Alumni BULLETIN

School of Medicine, University of North Carolina at Chapel Hill

UNC's new approach to caring for mothers and babies

'MINI MEDICAL SCHOOL' Medical science for the masses

Dean's Page

The University of North Carolina at Chapel Hill is consistently ranked as one of the top five public universities in the United States. Perhaps the major factor in establishing such rankings is the amount of research support that the faculty is able to obtain from the National Institutes of Health (NIH). In that regard, the year 2000 has been a truly outstanding one for the University. Indeed, in the year just completed, the University received over $207 million in NIH grant support, making it the first year UNC-Chapel Hill ever exceeded $200 million in NIH awards.

You will be particularly pleased to learn that the School of Medicine played a vital role in this increase in NIH grant support to the University. Specifically, $145 million — or 70 percent of the $207 million received by the entire University — came directly to the School of Medicine. While sometimes the exceptional accomplishments of our faculty are taken for granted, the School of Medicine has not always held such a lofty ranking in terms of NIH awards. For example, in the decade of the 1970s, the School of Medicine received an average of $12 million a year from the NIH and held a mean ranking of 27th out of the 125 medical schools. In the 1980s, the average yearly grant support rose to $39 million, and we moved up to 20th place among all medical schools. In the 1990s, the average annual amount of NIH support was $93 million, and our ranking among all schools of medicine had increased to 15th.

While the research activity of the School of Medicine has made remarkable progress over the past three decades, our goal is to move to a still higher level of academic excellence. We are convinced that the best way to achieve this goal is by recruiting, developing and then retaining on our faculty a population of outstanding young investigators, people whom we believe will be working at the cutting edge of science in the initial decades of the 21st century. Toward this end, we have taken advantage of a number of NIH programs and funding mechanisms that are specifically designed to provide career development opportunities for junior faculty members. Each of these awards carries with it a total of five years of protected research time. They each link the junior faculty member with a senior mentor who is expected to assist the young person achieve research independence by the end of the award. At UNC, we have been particularly successful in working with our junior faculty to obtain a variety of NIH-funded career-development awards. These include:

— *Clinical Associate Physician (CAP) Awards and Mentored Patient-Oriented Scientist (K30) Awards:* These are designed for young academic researchers whose goals involve clinical and/or translational research (i.e., research that involves direct interaction with patients). At present, 16 of our junior faculty members hold these awards, and six additional applications are at the NIH pending review.

— *Mentored Clinical Scientist (K08) Awards:* These are made to young faculty members with a commitment to a laboratory-oriented research career. The School of Medicine currently has 14 K08 awardees, and many others are either pending review or in preparation.

In addition to these NIH-funded programs, many other junior faculty members have received career development awards from a variety of prestigious foundations and other funding sources. Examples include: Burroughs Wellcome Fund Career Awards (3), Pew Scholars (3), Searle Scholar (1), Damon Runyan Award (1), National Science Foundation Presidential Scholars (2), Ellison Medical Foundation New Scholar (1), American Heart Association Career Development Awards (4), American Academy of Pharmaceutical Physicians Award (1) and Cystic Fibrosis Foundation Award (1).

In addition to these individual awards, the School of Medicine has also received two important institutional awards that will enable us to provide career development research opportunities to our junior faculty:

• *The Clinical Research Curriculum (K30) Program:* This program was recently awarded to UNC as one of an initial cohort of 35 institutions. The purpose of the K30 Program is to enable the School to develop a curriculum specifically designed to train junior faculty members who wish to pursue careers in clinical and patient-oriented research. A total of 9 junior faculty members participated in the K30 Program during this, its initial year.

• *Building Interdisciplinary Careers in Women's Health (BIRCWH) Program:* UNC received a BIRCWH award in October as one of an initial cohort of 11 institutions. With funds from the BIRCWH award, we are able to provide support for 75 percent of the time and effort of as many as six young people at any one time. The selection of these junior faculty members (referred to as BIRCWH scholars) was based upon their commitment to research careers in areas of vital importance to women's health. Support from BIRCWH grant assures a scholar of mentoring, protected research time and assistance in writing his or her individual career development grant application.

Thus, I am convinced that UNC remains well-positioned to further this tradition of excellence. Additionally, this new cohort of outstanding young faculty members will continue to provide the momentum that is needed to carry us to a still higher level of academic prominence.

Jeffrey L. Houpt

Jeffrey L. Houpt, MD
Dean, School of Medicine

Medical Alumni BULLETIN

School of Medicine, University of North Carolina at Chapel Hill

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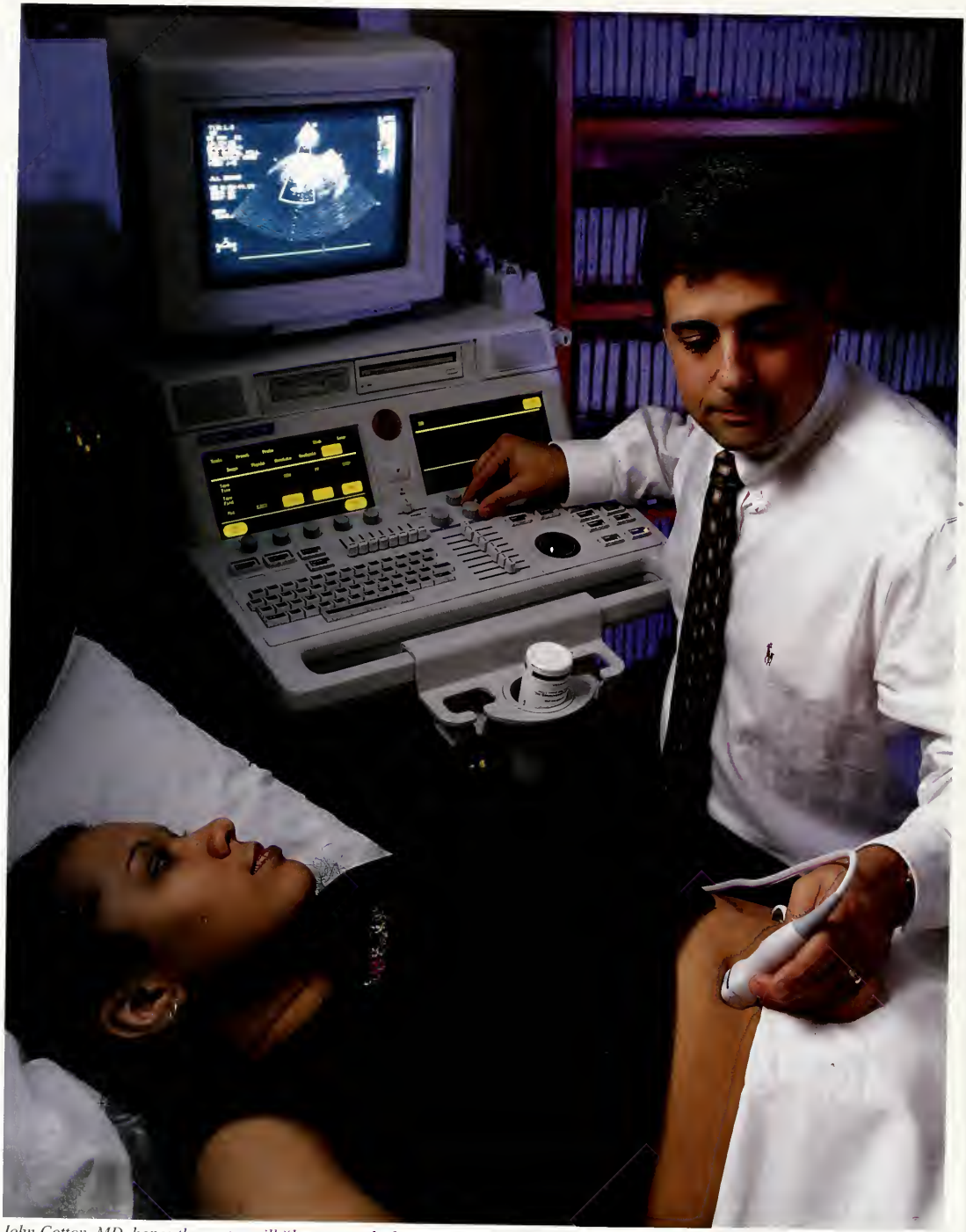
On the Cover: Mark Bleiweis, MD, is an asset to the UNC Center for Maternal and Infant Health.



John Cotton, MD, hopes the center will "become a platform to educate professionals and the public about the special issue related to perinatal care."

Striving for a 'profound impact': New center targets improved health for mothers and babies

By Laura Ertel

North Carolina has one of the nation's highest rates for infant mortality, low birth weight, and premature birth. One out of 30 of the state's infants is born with a condition serious enough to require specialized medical care.

In light of these sobering facts, several years ago leaders at the UNC departments of pediatrics and obstetrics and gynecology, the School of Medicine, the N.C. Women's Hospital and the N.C. Children's Hospital got together to determine how best to address this health crisis. In 1999, they decided to create the UNC Center for Maternal and Infant Health, an interdisciplinary center dedicated to improving the health of North Carolina mothers and babies.

The center provides integrated, coordinated care for high-risk pregnant women with conditions like diabetes, hypertension and sickle cell anemia and infants with complex medical problems such as spina bifida, cleft palate, and heart defects. Last November, after a yearlong strategic planning and development process, the center began its first clinical service, providing diagnosis, consultation and expert care to avoid or lessen the severity of birth complications. It is the first center of its kind and is creating a model for other institutions to follow.

"By focusing on both mother and child, the UNC Center for Maternal and Infant Health provides a unique structure to deliver comprehensive interdisciplinary care centered on the family," said John Cotton, MD, an assistant professor in the Department of Pediatrics and pediatric director of the center. "We hope the center will foster both basic and clinical research opportunities and become a platform to educate professionals and the public about the special issues related to perinatal care."

Ginny Dudek, RN, MEd, consults with a couple the center is helping.

With the maze of subspecialized physicians and sophisticated technology now prevalent at many medical centers, two major issues can be a lack of communication and an environment perceived by patients as overwhelming and uncaring, said Ken Moise, MD, obstetrics and gynecology director of the center and UpJohn Distinguished Professor and division chief of maternal-fetal medicine in the Department of Obstetrics and

Continued on page 4

Continued from page 3

Gynecology. "The center strives to improve communication between leaders in the fields of obstetrics, pediatrics and surgery while easing the tension for the patient from the community who requires access to this highly specialized care for her unborn child."

For both referring physicians and patients, one of the most innovative and valuable features of the new center is its focus on coordination of care, said Lucy Siegel, the center's executive director. "Each patient enrolled in our perinatal service is assigned to a perinatal nurse care coordinator. This coordinator is the interface between the referring physician in the community and the medical team at UNC, providing one efficient and timely point of contact to keep the referring physician fully informed about the patient and the treatment plan and facilitating communication with the UNC subspecialists. The care coordinator also provides a seamless experience for each patient, consolidating appointments to minimize trips to the hospital, making sure each woman understands her plan of care and providing counseling, health education and emotional support during the prenatal period."

Continuity of care is a focus for the new center. In the traditional health care model, a pregnant woman enters a health care system under the care of her obstetrician. When the baby is born, the infant's care is transferred to the pediatrician. In the case of high-risk pregnancies and infants, this lack of continuity can lead to fragmentation of care and miscommunication of important information.

Because UNC specializes in high-risk prenatal care and the care of high-risk infants, the need for an integrated system is acute. This summer, therefore, a pediatric nurse care coordinator will join the center to focus on the ongoing care of infants with medical complications. This nurse coordinator will facilitate ongoing treatment and follow-up appointments with the UNC medical team and provide advice and support for the family as they transition back home. The coordinator will work with infants who delivered at UNC as well as those who are seen by UNC's pediatric sub-specialists in outlying clinics. Medical problems, such as congenital heart disease, may not always be identified early on. Through this program the pediatric care coordinator will assist families with accessing needed services and be an interface between UNC physicians and the infant's pediatrician.

To better serve the state's growing Hispanic population and indigent population, the center has requested funds from a private foundation to hire a third care coordinator. If funded, this individual will focus on pregnant women with medically complicated conditions such as diabetes, hypertension and sickle cell anemia who are poor or Spanish- speaking.

Another innovative service offered by the center is the maternal transport program, in which a nurse meets every high-risk pregnant woman transported to UNC Hospitals by helicopter or ambulance and facilitates information-sharing between the Hospitals and the referring physician throughout the patient's stay at UNC. The nurse visits these patients daily on rounds with UNC physicians and provides emotional support and educational information to each woman regarding her specific medical problem. If the woman delivers at UNC, the transport nurse coordinator provides the infant's discharge summary to the referring obstetrician to keep the doctor abreast of the mother's and infant's conditions.

Many of these services are made possible by grants and private donations received by the denter, including support from The Medical Foundation of North Carolina Inc.

The UNC Center for Maternal and Infant Health also focuses on research to improve

Head of center impressed by its commitment

Siegel

Lucille P. Siegel, MPH, was recruited to UNC in August 1999 to help establish the UNC Center for Maternal and Infant Health. In addition to serving as executive director of the center, she holds joint appointments as a research assistant professor in the departments of obstetrics and gynecology and pediatrics.

Siegel, who has a master's of public health degree from the School of Public Health at the University of North Carolina at Chapel Hill, worked for a decade at the Delaware State Health Department in several managerial positions. Just prior to coming to UNC, she helped create and directed a preventive medicine institute at the Christiana Care Health System, a private, not-for-profit health care system in Wilmington, Del.

She is thrilled at the opportunity to focus on her primary interest in maternal and child health.

"When I heard what UNC was planning to do, I felt that the vision the physicians had for this center made so much sense and the impact it could have was so profound. This center can help so many people," Siegel said. "Now that I am here, much of my motivation is driven by the commitment of the physicians, the care that they provide for their patients and their willingness to go beyond what is expected and make sure that their patients receive the best possible care. That is so impressive to me."

Michael and Amy Page of Wilson County, left, listen with Nancy Chescheir, MD, as Ann Ritter, MD, details for news reporters the delicate surgery that was performed months earlier on Mrs. Page's unborn daughter, Hannah. The fetus was the first at UNC to undergo in utero surgery to correct for complications caused by spina bifida.

the health of mother and child. The center recently received a significant honor when it was invited by the National Institutes of Health to become a member of its Maternal-Fetal Medicine Units Network, a group of 14 academic medical centers that participate in randomized clinical trials addressing medical conditions associated with pregnancy.

In November, the center sent a service directory and letter of introduction to approximately 600 N.C. obstetricians and other health care providers who refer high-risk prenatal patients to UNC. If you did not receive one of these packages and would like information on the UNC Center for Maternal and Infant Health and its services, visit the center's website at www.mombaby.org or call the lead perinatal care coordinator, Ginny Dudek, RN, MEd at (919) 966-8086.

> *"By focusing on both mother and child, the UNC Center for Maternal and Infant Health provides a unique structure to deliver comprehensive interdisciplinary care centered on the family."*
>
> John Cotton, MD

The Center's leaders are excited about the early feedback they have received from both referring physicians and patients on the impact of these new services.

"It is rewarding to see the impact on the individual women and babies with whom we work," Siegel said. "By helping one family at a time, we hope we can ultimately make a profound impact on the health of mothers and children throughout North Carolina."

Mini-Medical School brings medical science to life

Angela Kashuba, PharmD, works closely with Myron Cohen, MD, in his infectious disease research.

By Leslie H. Lang

It all began in 1990, in mile-high Denver, Colo., at the University of Colorado Health Sciences Center. Launched initially as a community outreach effort, an alternative to the typical single-topic health care lecture offered by community hospitals across the country, few on the scene thought more than 40 people would attend.

But before announcements could be mailed out, a reporter got wind of the program and wrote a small article on it for the Rocky Mountain News. By day's end, more than 500 people had signed up, filling the course.

Today, more than 80 medical institutions across the country offer a Mini Medical School program. And in October 2001, McGill University will launch the first program in Canada.

Since its inception in 1995, the UNC Mini Medical School remains one of the most popular community-based lecture series in the Triangle and, it seems, beyond. This year, one retired devotee from Troy, N.C., drove 83 miles each way to attend.

Whatever the travel distance, enthusiasm runs high among former attendees. They make up more than half the audience of any given session. Many are retired, some in their late 80s and early 90s. But plenty are younger than 40, including teen-agers who attend with their high school science teachers.

Price or perks?

What drives more than 400 people each year to sign up for a series of lectures on topics ranging from new radiation therapies to the digestive system, from genome science to fetal surgery?

Could it be the modest price and some great perks? A fee of $25 pays for a series of five two-hour evening lectures; a detailed notebook complete with lecture summaries and glossaries; an official T-shirt, emblazoned with the program's logo; and a chance to hobnob with some of Carolina's finest biomedical researchers and clinicians.

It seems that a variety of reasons draw people to the program. Some may be contemplating careers in medicine or biomedical research, or had done so at some time. Some are spouses or partners of physicians and researchers who want a better understanding of biomedicine. Others want to learn how important medical discoveries are made. Still others are looking for information that will make them better medical consumers or that might help them grasp the brass ring of extended healthy longevity.

Miffed about missing last year's sessions "because we had to go away," one retired couple said the best thing about Mini Medical School is the hours of conversation it provides both for themselves and their friends.

The program's beginnings at Carolina sprang, in part, from a pragmatic vision. In early planning sessions, William Easterling, MD, professor of obstetrics and gynecology, and John Stokes, vice president, Public Affairs & Marketing, viewed the principal goal as informing the influential public about the importance of biomedical research. This, they reasoned, would lead to support from funding agencies.

Promotional activities for the program made a point of targeting community leaders, sending mailings to members of government advisory boards and to members of civic groups.

"But we also saw Mini Medical School as an important service to the intellectual community and increasing the public's awareness of health issues. Early on the series focused on basic science and then it moved on to clinical science," Easterling said.

From the beginning, Mini Medical School faculty members were selected for their teaching skills as well as their clinical and research expertise.

"The UNC Mini Medical School became an opportunity to showcase the enthusiasm of our top researchers for their work and to make science understandable and exciting to lay people," Stokes said.

Soon it became a distinct honor among faculty to be asked to participate in the program.

"An exclamation point to the program's success occurs when I see members of our own medical faculty seated in the audience," Easterling said.

In more ways than one, the UNC Mini

Medical School helps put a face on the institution. Surveys reveal that the program enhances the image of the medical school among many Mini-Med graduates.

And it also puts a more human face on physicians and biomedical scientists. Many in the audience were moved when a lecture on bone marrow transplant was followed by a discussion with a patient about her experiences with the procedure.

At Mini-Med there is always room for humor. For this year's session on digestive diseases, the first speaker opened with a meticulously labeled illustration of the human digestive system. On top sat the head of the next lecturer.

More than one former Mini-Med speaker has stated how enjoyable the experience had been, even enlightening. The basic researchers are unanimous in the lesson they've learned: scientists ought to spend a percentage of their time talking to the public, getting their points across in English rather than the language of the laboratory.

Many enthusiastic Mini-Med "students" are repeat participants.

The 'Deanlet'

Every medical school must have a dean. UNC Mini-Med is no exception. Call him Director, Overseer Of All Things Medical, or, as he likes to put it, "Deanlet," for the past three years Myron S. Cohen, MD, professor of medicine, microbiology and immunology and chief of the division of infectious diseases, has run the show.

Dubbed the "EmCee" by some students, Cohen's official duties as director of the program have gone beyond his onstage efforts as session host and discussion moderator to include advising on content planning and faculty selection. And he also has lectured on topics tied to infectious diseases.

Indeed, his benign and often lighthearted presence at each session has made him an audience favorite. On the evaluation sheet students turn at evening's end one often finds a request that Cohen be returned to the podium the following year.

Still, it is Cohen who insists that the program's success never would have been achieved without the key ingredient behind the success of any medical school, "maxi" or mini: quality faculty.

"Through this program we hope that students develop an appreciation for the science behind medical practice, the passion with which investigators at UNC pursue their clinical and basic research, and the reason why UNC-Chapel Hill has become one of the top-rated medical schools in the United States," Cohen said.

Mini-Med attracts a large and diverse audience, from undergraduate students to seniors.

Faculty Notes

David Janowsky, MD, professor of adult psychiatry, and **Art Prange Jr. MD**, are the subjects of individual autobiographical chapters, honoring their landmark contributions to psychopharmacology, in the new book *The Triumph of Psychopharmacology and the Story of CINP*.

George Breese, PhD, professor of psychiatry and pharmacology, has been selected to receive the 2001 American Society for Pharmacology and Experimental Therapeutics Award for Experimental Therapeutics. This prestigious award is given in recognition of basic studies which contribute to therapeutics. Breese received it in honor of his work in the development of pharmacological treatments for self-injurious behaviors.

Robert Hamer, PhD, has joined the Department of Psychiatry as professor of psychiatry and biostatistics and director of biostatistics.

Susan Girdler, PhD, assistant professor of general hospital psychiatry and behavioral medicine, has been selected as the 2001 recipient of the American Psychosomatic Society's Early Career Award for Contributions to Psychosomatic Medicine.

Frank S. French, MD, professor of pediatrics and director of the Laboratory for Reproductive Biology, has received the 2001 Distinguished Andrologist Award from the American Society of Andrology.

Peter Curtis, MD, professor of family medicine and director of the Faculty Development Program, is the principal investigator for "Integrating CAM into Health Professions Education in North Carolina." The five-year grant was awarded to the Program on Integrative Medicine by the National Center for Complementary and Alternative Medicine. The CAM Education Project seeks to accelerate the integration of complementary and alternative education into the health professions schools throughout the state.

Steven H. Zeisel, MD, PhD, chair of the department of nutrition, received the Dannon Institute Award for Excellence in Medical/Dental Nutrition Education from the American Society for Clinical Nutrition. The award was presented in recognition of an outstanding career in medical/dental nutrition education. Zeisel's efforts were widely recognized to have had international impact and reflect acknowledged excellence in nutrition teaching or nutrition education research that extends beyond the local institution and that includes innovations in medical/dental education. A cash award and inscribed plaque are provided by The Dannon Institute.

Zeisel was also elected to be president of the American Society for Nutritional Sciences. The society is the premier research society dedicated to improving the quality of life through the science of nutrition.

Anna Maria Siega-Riz, PhD, assistant professor in maternal and child health and nutrition, recently won the Mary C. Egan Award from the American Public Health Association Food and Nutrition Section for innovation in public health, nutrition in maternal and child health, and leadership in community nutrition.

Boyd R. Switzer, PhD, associate professor of nutrition, is serving on the Technical Advisory Committee for the Office of Health and Human Services at General Baptist State Convention of North Carolina. This is the largest African-American church organization in North Carolina.

Aravinda de Silva, PhD, assistant professor of microbiology and immunology, was recently acknowledged in the New York Times for his new findings on Lyme disease, which may contribute to finding a more effective vaccine. de Silva's ongoing research is involved with Lyme bacteria or Borrelia burgdorferi.

Jack Griffith, PhD, professor of microbiology and immunology, recently received an Ellison Foundation Senior Scholar Award in the amount of $150,000. Griffith also received a certificate and rosette from the Association for the Advancement of Science.

Griffith

Amelia F. Drake, MD, associate professor of otolaryngology/head and neck surgery, assumed directorship of the UNC Craniofacial Center. Drake has served for a dozen years as the otolaryngologist for the Cleft Palate/Craniofacial Team. The team membership also includes representation from psychology, pediatric dentistry, plastic surgery, orthodontics, genetics, oral surgery, speech pathology, and social work. The strength of the team is its coordinated care for patients with cleft lip and palate and craniofacial issues, its leadership in the national organization (the American Cleft Palate Association), as well as its research in a variety of areas.

Drake

Blair Keagy, MD, professor and division chief of vascular surgery, was named the first George Johnson, Jr., MD, Distinguished Professor of Vascular Surgery. Johnson has served as a teacher, mentor, and role model for young surgeons for more than three decades. A pioneer in vascular surgery, he helped develop UNC's Vascular Surgery Service and Peripheral Vascular Laboratory, and chaired the committees that designed and implemented the day-surgery facility in 1992.

Mark Weissler, MD, professor of otolaryngology/head and neck surgery, was honored with the appointment to the rank of Joseph P. Riddle Distinguished Professor of Otolaryngology. Riddle was an outstanding businessman from the Fayetteville area who contributed substantially to the UNC Division of Otolaryngology/Head and Neck Surgery. His funding led to advances in the study of otolaryngologic allergy and the establishment of an otolaryngology and microsurgery laboratory that bears his name. Riddle's continued interest and support of

Weissler

medical programs at UNC resulted in a substantial gift to UNC Lineberger Comprehensive Cancer Research Center.

The first Joseph P. Riddle Distinguished Professor of Otolaryngology was W. Paul Biggers, MD, who passed away last year. Weissler is the second to receive this honor, in recognition of his 15 years of service to the UNC and his local, regional and national work in head and neck oncology.

William Droegemueller, MD, has become one of few to receive an honorary degree of Doctor of Science at the University of Colorado. The Board of Regents of the University of Colorado recently presented him with the degree in recognition of his contributions as a teacher, researcher and author.

Droegemueller, clinical professor in the Department of Obstetrics and Gynecology at UNC, has made many contributions to women's health. He has conducted research in the area of intrauterine cryosurgery, and because of his early pioneering work in diagnosing and managing intrauterine diseases, thousands of women no longer face hysterectomies.

In addition to his teaching and writing, Dr. Droegemueller has played a significant role in shaping and setting standards for women's health care. As director of evaluation for the American Board of Obstetrics and Gynecology, he has demonstrated leadership that has resulted in upgrading the standards for certification and helped ensure a higher level of competency of today's obstetrics and gynecology specialists.

Dr. Droegemueller is a 1960 graduate of the University of Colorado Medical School. He is a former professor and vice chairman at the Colorado University Department of Obstetrics and Gynecology. Droegemueller served as chairman of the Department of Obstetrics and Gynecology at UNC from 1982 to 1996. He has also written over 100 articles and chapters in several publications.

Shawn McCandless, MD, assistant professor of pediatrics in the division of biochemical genetics and metabolism, has led a study, which found that a vast majority of children admitted to hospitals have a genetically determined underlying disorder. The study found such disorders accounting for more than two-thirds of all children admitted to a large full-service pediatric hospital over a one-year period. The findings were presented to the 2001 pediatric Academic Societies and American Academy of Pediatrics joint meeting in Baltimore, Md.

Georgette Dent, MD, performs a Pearls Day skit as a "Survivor."

George F. Sheldon, MD, Zack D. Owens distinguished professor of surgery and chairman of the department of surgery, recently delivered the 175th Hunterian Oration at the Royal College of Surgeons in London.

This lectureship is one of medicine's oldest and most distinguished. Sheldon was admitted as an honorary fellow of the Hunterian Society, founded in 1819 and one of the oldest medical societies of its kind.

Sheldon, who has served as surgery chairman at UNC for 17 years, is the chairman of the Association of American Medical Colleges.

James D. Folds, PhD, professor of Pathology and Microbiology and Immunology, received the 2001 Professional Recognition Award from the American Board of Medical Microbiology and American Board of Laboratory Immunology. The award honors Folds for 25 years of promoting the clinical immunology and microbiology professions through outstanding scholarship, training, and education efforts and professional service. Folds, director of the William McClendon Clinical Laboratories, is the first immunologist to receive the annual award.

Carla Sueta, MD, was recently published in the *N.C. Medical Journal*. She consulted with the *Medical Review of North Carolina* to write the article, "Hospital Interventions Improve Care of North Carolina Medicare Patients with Acute Myocardial Infarction." The results of the study showed that simple hospital-based interventions, such as using aspirin during hospital stay and receiving correct medication once discharged, improved the quality of care of Medicare patients who suffered heart attacks.

Suresh Mukherji, MD, associate professor or neuroradiology, was appointed to the editorial board of American Journal of Neuroradiology, the editorial board of *Journal of Computer Assisted Tomography*, the editorial board of the International Advisory Board of *Asian Oceanian Journal of Radiology*, guest editor of *Seminars in Ultrasound, CT, and MRI, Advanced MR Imaging Techniques, Volume 21*.

New directions for Cell Biology

By Leslie H. Lang

During his graduate training in the School of Medicine's Microbiology Department in the early 1980s, Vytas A. Bankaitis, PhD, never once entertained a notion that someday he would return to Carolina to head a department he would promptly rename. In those days, he would often grapple with uncertainty about a career in science and the uncertainty about making ends meet financially for his family, which now included a new baby boy.

Today, the new head of Cell and Developmental Biology is fully aware that such issues were not unique to that young student. Such doubts were endemic among many of his peers, especially those with families. It has always been that way, whatever the graduate field of study.

But Bankaitis found he could draw strength from adversity. For one thing his own family back home in the Cleveland, Ohio, area had done the same. For another, growing up the oldest of nine siblings made adversity part of the territory.

"My parents were immigrants from Lithuania. There were highly educated people in my family, especially my grandfathers, who were forced to abandon their professions when they were displaced by the Second World War. Circumstances dictated that they support their families by toiling in menial jobs. Education was a very important thing in my family, and expectations were high from the beginning."

And it also helped immeasurably to have good local schooling. "I was very fortunate to have attended an outstanding public school system in Fairview Park, a western suburb of Cleveland. They offered advanced courses, especially in high school, and I was thinking medical school at the time. In fact, some of the advanced courses were almost at the level of first year medical school courses," Bankaitis recalled.

"But I found I was more curious about science per se than I was about memorizing the neuroanatomy of the sheep brain, for example. So I decided in high school to study science in college."

Vytas A. Bankaitis, PhD

A swimming athletic scholarship helped propel him to a small school in Pennsylvania, Edinboro State College, now Edinboro State University. While enrolled there, he met a new junior faculty member who worked in bacterial genetics.

"I did extracurricular work in his lab and became fascinated by the fact that, with relatively simple manipulations, I could make an organism do something that it ordinarily couldn't do. In this case, I could make an organism grow under conditions under which it ordinarily couldn't grow."

In 1978, Bankaitis graduated with his BS in biology. Two years later, and with a master's degree, he and his wife arrived in Chapel Hill.

Those days were in the pre-genomic past, in another century literally and figuratively; a time when genome sequencing, gene microarrays and proteomics had yet to arrive in scientific discourse.

Even so, in moments of prescience, the intellectually adventurous might put an ear to the rail and hear faint rumblings of a mighty express on the way, one destined to change the nature of biomedical research. More than a few scientists had already tossed their bags on board and jumped on for the ride.

At Carolina were a number of these individuals, top scientists and mentors all. Among them was the late Phillip Bassford, a microbiologist and bacterial geneticist.

"I owe my entire scientific career to Phil because I was not sure I was going to continue in science when I came to his lab," Bankaitis recalled. "It was his way of training people, the way he did science, that made all the difference.

"When I do a linear regression of my scientific career, it all started here. So one of the real motives for coming back to Carolina was because I have always considered this my scientific home."

Bankaitis pointed to an important lesson he learned in Chapel Hill.

"I learned that science, when it's performed in a collegial but high energy atmosphere, when there are opportunities for good interactions with high quality people, becomes a lot of fun," he said. "I'm referring to people on my doctoral thesis committee like Clyde A. Hutchison, now a member of the National Academy of Science; Janne Cannon; Ken Bott; Fred Sparling, then chair of the Department of Microbiology and Immunology; my mentor Phil Bassford; and my student and postdoctoral colleagues, such as Pat Ryan, Mike Janusz, Rick Schwalbe, George Stewart, John Glass and others —these were the people who really made a huge difference for me by making science fun."

At UNC, Bankaitis studied protein secretion in the bacterium *E. coli.* He decided to continue his research in protein secretion as a postdoctoral but to study it in eukaryotic cells. "So I went to CALTECH in 1984 as a Helen Hay Whitney Foundation postdoctoral fellow and for two years worked on protein secretion in yeast."

His independent career began as assistant professor of microbiology at the University of Illinois at Champaign-Urbana where he was honored as an Arnold Beckman Scholar in 1986. There he worked on protein secretion in both yeast and *E. coli* "but very quick-

ly my interest turned to the yeast project we were engaged in and have since expanded into mammalian systems," he said.

The researcher joined the University of Alabama at Birmingham Medical Center Cell Biology faculty in 1992. During his eight-and-a-half years there, he served on the Cell Biology Advisory Panel for the National Science Foundation and the Cell Biology, Microbial Physiology, and Microbial Genetics study section for the National Institutes of Health. He now serves on several editorial boards and on the Cell Development and Function 2 study section for the National Institutes of Health.

Less than six months into the new millennium Carolina beckoned with a departmental chairmanship. The prospects of a return for the cell biologist tantalized on a number of levels. This becomes abundantly clear as Dr. Bankaitis reflects on his decision with an explanation both sincere and straightforward.

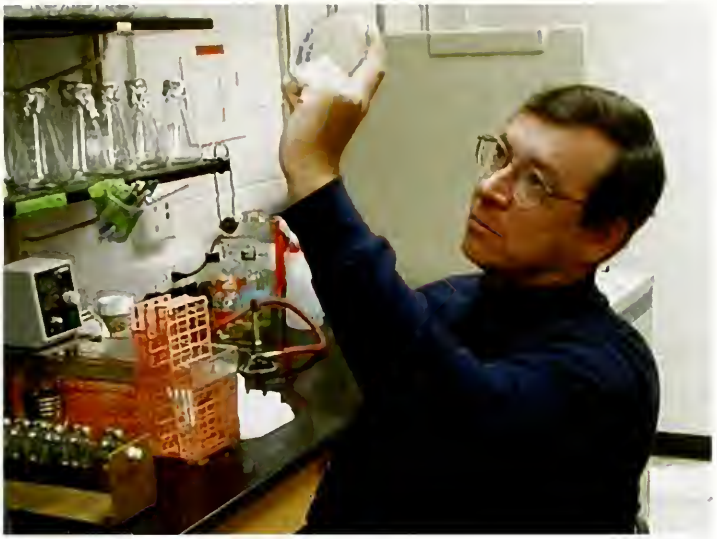
"Taking a chairmanship is not something I ever thought I'd do. I think what happens as one gains experience and grows as a scientist is that one develops a sense of how things should be done. Also, at some point, we start looking back on our careers and asking ourselves where we have made a difference. I think the most enduring impacts are made when we help build units, when we foster interactions between scientists, when we spread that influence around instead of simply ruling our various niches.

"That last point can't be overemphasized," he added. "A chair has to be altruistic and must successfully negotiate the balance between altruism to the department and commitment to one's own programmatic or scientific interests.

"Finally, this decision was made easier because I really feel I owe the University of North Carolina my career. So the opportunity to return and give something back to the institution was a major factor. I'm not sure I would have taken such an administrative position at another institution because I would not have felt that same loyalty and need."

In terms of a vision for his department, Dr. Bankaitis says the title change from Cell Biology and Anatomy to Cell and Developmental Biology reflects the future direction of the department.

"First of all, biology in general is an enormously exciting field now. With a number of genomes, including the human genome, sequenced, we have access to information we could only have dreamed of just a few years ago. Tremendous amounts of information can now be gathered very rapidly. Certainly with the enormous genomic science initiative on campus, and the outstanding quality of the faculty that have been recruited to Carolina to direct this effort, there's no question that genomic science will become a real strength at this university.



Bankaitis examines yeast mutants engineered for defects in a novel lipid-meditated signaling pathway discovered by his lab.

Dr. Bankaitis pointed out that cell biology interfaces with every other field, including genetics, developmental biology, genomics and proteomics, biochemistry, structural biology and chemistry. "And I think most will agree that the best and most exciting science is done at the interface of different fields."

Dr. Bankaitis believes that scientists who fit his recruiting profile, particularly those who work in simpler and genetically tractable model systems – yeast, worms and Drosophila, for example – will be very successful in navigating the post-genomic era.

"These model systems will continue to offer a real advantage in this arena because complex pan-genomic questions can be addressed more readily in these systems, and we can more readily discern the patterns," he says.

"Moreover, the post-genomic era will bring the experimentalist back to front and center. When we've collected the data, when we've categorized the genes, when we've generated the expression profiling databases, then we'll still have to answer the basic question, 'Well, how does this all work?' Model systems will continue to make pioneering contributions there. Obviously, translation of what we learn from model systems into the mammalian context will be key."

In making the job offer to Dr. Bankaitis, William Marzluff, PhD, executive associate dean for research, knew he was going after a very special individual.

"He's extremely successful and energetic. Vytas is a very broad scientist, from genetics to structural biology. We anticipated that he'd interact significantly with our Genomics Science Center and Neuroscience Center. And he'll be very effective at recruiting people here."

Dr. Bankaitis has already signed aboard three outstanding scientists: Andrew Morris from the State University of New York at Stony-Brook; Patrick Brennwald from the Weil Medical College at Cornell University; and Douglas Cyr from the University of Alabama at Birmingham.

"All three scientists are coming in at the associate professor level and all three have already established strong international reputations. I think the department is off to a flying start in faculty recruiting," Dr. Bankaitis said.

Now back in Tar Heel country, the father of two sons and a daughter, his wife a family practice physician, pays tribute to a department that has recently passed through some hard times.

"The Department of Cell Biology has had to overcome much adversity in the last several years. The necessary renovations of it's home, Taylor Hall, were enormously disruptive to the research and teaching efforts of the faculty and posed a serious challenge to departmental morale. Yet, the faculty and staff showed great resilience, as did the graduate students and postdoctoral trainees. Faced with adversity, they all stepped up, discharged their responsibilities, and maintained an enviable espirit de corps. The efforts of these many people is going to pay big dividends for the entire department, including for the new chair. I'm looking forward to exciting times."

News Briefs

Radiology residency ranks high

The American Board of Radiology recently ranked UNC's radiology residency program fourth in the United States out of 196 programs based on the percentage passing rate on specialty oral exams by first-time UNC takers in the last five years.

American Chemical Society names 2001 NC Distinguished Lecturer

Sancar

Aziz Sancar, MD, PhD, Sarah Graham Kenan Professor of Biochemistry and Biophysics at UNC, has been named the 2001 Distinguished Lecturer by the North Carolina Section of the American Chemical Society. Sancar, a graduate of Istanbul School of Medicine in Turkey, joined the UNC faculty in 1982, five years after obtaining his PhD from the University of Texas at Dallas. His research interests lie at the interface of chemistry and molecular biology. He has published over 200 articles in the field of DNA repair. His research group discovered the pigment in the human eye called cryptochrome, which regulates the biological clock. The annual NC-ACS award recognizes an individual who has made a distinguishable contribution to the chemical sciences.

UNC Pair Named Burroughs Wellcome Fund Award Winners

Two Carolina faculty are winners of the Burroughs Wellcome Fund New Investigator Awards in the Pharmacological and Toxicological Sciences. David P. Siderovski, PhD, assistant professor of pharmacology and Mohanish P. Deshmukh, assistant professor of cell and developmental biology, each will

Siderovski

Deshmukh

receive $210,000 over three years, beginning July 1, 2001. Both are members of UNC's Neuroscience Center. Carolina is the only university in this round of awards to have won in both categories. The awards, which began in 1998, recognize the importance of the fields of pharmacology and toxicology to human health and are aimed at fostering the development of scientists early in their careers. This is the final year for these awards.

20 percent hike in NIH research funding places UNC 13th among private, public universities nationwide

National Institutes of Health funding for research at the University of North Carolina at Chapel Hill jumped more than 20 percent in fiscal 2000, according to new figures just released by the federal agency.

UNC faculty received $207 million in NIH funding — up from $171.3 million in 1999 — ranking 13th overall among private and public universities nationwide, and up from 14th last year. Johns Hopkins University topped the list at $419.3 million. Carolina is the top public university in the South and one of only five Southern universities, public or private, cited in the NIH's top 20.

The NIH, part of the Department of Health and Human Services, is the principal biomedical research arm of the federal government. NIH research institutes are fighting diseases including AIDS, alcoholism, arthritis, cancer, diabetes and stroke, as well as tackling health topics related to aging, women and children, drug abuse, the environment and rapidly emerging multidisciplinary fields such as genomics and proteomics.

The School of Medicine received $144.2 million, ranking 15th nationwide. Dr. Jeffrey Houpt, dean of the medical school, said the almost $13 million increase in medical school funding from fiscal 1999 to 2000 would have strong implications for UNC's new genome sciences initiative.

UNC Chancellor James Moeser recently announced a public-private investment in a campuswide genome sciences initiative representing at least $245 million over the next decade. Grants to the School of Medicine from sources including the NIH accounted for more than $10 million of that total.

Houpt said he had seen what a difference the NIH's 1999 selection of UNC as one of two Regional Mutant Mouse Resource Centers in the nation made in genetics and genomics research. The new center, supported by a $5 million NIH grant, helps characterize, maintain and distribute an ever-growing array of mutant mouse models to the research community.

"This strong NIH funding gives the university crucial resources to further elevate research efforts and provides further validation that we are poised to become a national leader in genomics-related research," he said. "The discoveries in genomics made in Chapel Hill will ultimately benefit the people of North Carolina and the world, who will live better lives because of our faculty's dedication."

UNC's $207 million NIH funding total included 484 research grants worth $176.4 million, 43 training grants totaling $10.5 million, 30 fellowships worth close to $1 million, 14 research and development contracts valued at $17.2 million and six other awards worth $2 million.

All five of UNC's health affairs schools — dentistry, medicine, nursing, pharmacy and public health — ranked within the top 25 of public and private institutions, according to the NIH. Three UNC schools were listed at fifth or higher. Following are the NIH totals for all five schools:

- The School of Dentistry received $8.4 million, third nationwide.
- The School of Nursing received $5.3 million, third nationwide.
- The School of Public Health received $28.8 million — more than doubling the 1999 total of $13.2 million — fifth nationwide.

Luncheon honors volunteers

The annual Volunteer Service Award luncheon was held recently and honored Anne Wright, a volunteer in UNC Hospitals emergency department. Wright was given the Elaine M. Hill Award for Distinguished Volunteer Service, which included an engraved clock presented by UNC Hospitals President Eric Munson. The event also recognized volunteers who served more than 500 hours in the past year.

Anne Wright and Elaine Hill

Eric Munson and Anne Wright

- The School of Medicine received $144.2 million, ranking 15th nationwide.
- The School of Pharmacy received $1.5 million, ranking 24th nationwide.

Dr. Linda Dykstra, interim vice provost for graduate studies and research, said the close to $36 million increase in overall NIH research funding had strong implications for the future of faculty research at Carolina.

Fiscal 2000 overall research funding at UNC topped the $375 million mark for contracts and grants awarded for research, teaching and public service — an increase of 9 percent over the previous fiscal year. The components making up that total are the following: $316 million for research, $15 million for training, $41 million for public service and $4 million for operations.

In academic affairs, several units registered significant gains in overall research funding. Examples include Kenan-Flagler Business School, whose funding increased from $2.1 million to $4.6 million, and the School of Social Work, whose funding increased from $7.6 million to $11.6 million.

"Our faculty members are to be commended for their hard work and innovation, beautifully articulated through their research efforts," she said. "Our wonderful research funding numbers point to the professional and academic strengths of our faculty and ensure that we will further strengthen our national leadership within the world's promising research areas."

Dykstra added that UNC faculty further establish their leadership through their affiliation with prestigious national academies, including: eight members of the National Academy of Science, five members of the National Academy of Engineering, 20 members of the Institute of Medicine and 16 members of the American Academy of Arts and Sciences.

Last fall's passage of the $3.1 billion bond referendum for higher education will significantly improve space in which faculty conduct their research, through repair and renovation projects, as well as construction of new buildings, Dykstra said.

Health Sciences Library to present Netter exhibit

The UNC Health Sciences Library will exhibit drawings of the human body by Frank H. Netter, MD, Oct. 6-Dec. 31.

Netter, who has been heralded internationally as one of the foremost medical illustrators of the 20th century, dedicated his lifetime to producing thousands of drawings of the human body, which portray complex medical anatomy, human pathology, and the intricacies of physiological processes. Each finished plate highlights the essential details of the subject being covered and crystallizes the concept for the viewer, making his illustrations equally valuable to the fledgling student and seasoned practitioner alike. Netter's training as an artist and a physician, as well as the intense research process he conducted for every drawing, resulted in an accuracy and attention to detail unsurpassed in medical illustration.

The library's "Legacy of a Lifetime" exhibit will follow Netter's path as an icon of medical illustration, from his early training as a commercial artist to his most prominent project, the CIBA Collection of Medical Illustrations. Resource materials from the Health Sciences Library's Frank H. Netter, MD, Collection will illustrate the research process Netter conducted to produce his drawings, including the preliminary pencil sketches he used as the basis for the final plates in the CIBA volumes and the clinical symposia series.

The collection, donated to the library by Netter's daughter, Francine Netter Carlson, includes handwritten lecture notes and personal reminiscences of his projects and travels.

Incoming president feels urge to give back to alma mater

By Bernadette Gillis

Who knew spending time in a prison could lead to such a rewarding career?

When Thomas J. Koontz, MD, entered the School of Medicine, he thought he was interested in cardiology, but after performing surgery at Central Prison in Raleigh as a third-year resident, he knew exactly how he wanted to spend the rest of his life.

"I was just attracted to surgery. The technical aspects of it enamored me." He added, "From then on, I never looked back."

Koontz, class of 1966, always felt sure he would go into medicine, even though he wasn't always certain of the specialty.

Koontz grew up in Welcome, N.C., where his next door neighbor, a physician, influenced his love of medicine early on. "I think observing him as he worked with people in our small community and sensing the respect people had for him motivated me to become a physician myself."

After becoming a surgeon, Koontz found himself caring for the man who inspired him. Koontz said that when his former neighbor became ill, it meant a great deal to him to be able to provide care. "When I cared for him, it all came full circle."

Once he left the School of Medicine, Koontz completed his general surgery residency at Yale University and then joined the Air Force in 1971.

Following his stint in the Air Force, Koontz found himself close to home when he joined the staff at Forsyth Medical Center in Winston-Salem, where he was able to give back to his own community. He has served on the boards of trustees of Forsyth Medical Center and Medical Park Hospital continuously for the past 21 years.

In 1993, when he was president of the Forsyth-Stokes-Davie County Medical Society, he helped implement a program for the working poor. "I had been in practice for so long, and I kept seeing working people come in with no medical insurance. They would be financially devastated by their illness."

Thomas J. Koontz, MD, '66, addressed alumni at the annual Distinguished Service Awards and Distinguished Faculty Award banquet.

Koontz urged his colleagues at Forsyth Medical Center and N.C. Baptist Hospital to start Doctor's Care, a program to provide care to people who make too much money to receive government assistance but are not able to afford heath insurance. The program provides patients with free physician visits, as well as free hospitalization and

Thomas J. Koontz, MD

Age: 60

Wife: Lynne

Children: Jeff recently graduated from Tulane Law School in New Orleans; Jennifer lives in Atlanta.

Personal interests: Skiing, golf, tennis, traveling and gardening.

Koontz, and his wife, Lynne, attended the recent Alumni Weekend activities.

surgeries if indicated.

"It was a program that needed to be started for those who fall through the cracks," Koontz said.

The program, which has offered $5 million worth of free care to Forsyth County residents since its inception, gives patients peace of mind in addition to the care they need. Recently, Koontz performed a colectomy on a patient who, without Doctor's Care, would have faced a large bill that would have been difficult for her to pay. "She and her family were so appreciative of being able to have the surgery," Koontz said.

And receiving appreciation from the patients is what makes undertaking the program worthwhile, Koontz added. "That's better than getting a check in the mail."

More and more medical societies are getting involved with community programs, such as Doctor's Care, he said. "It gives us a chance to give back to the community. Doctor's Care has worked out nicely."

Koontz's dedication to his community and to Forsyth Medical Center has been evident for years. In 1980 he and some of his colleagues saw that Medical Park Hospital, which was privately owned, was about to be sold to a for-profit hospital chain. Koontz convinced his surgical colleagues to get together to buy the hospital. "Everybody stood up and fought for the hospital because we didn't want it to get out of local hands."

Even though Koontz has close ties with Welcome and Winston-Salem, the former Tar Heel hasn't forgotten UNC. As the new president of UNC's Medical Alumni Association, Koontz hopes to help raise as much money as possible, but said increased alumni participation will be the key. "If everyone gets involved, it's amazing how much good we can do."

Koontz and his former classmates showed how coming together as alumni could make a difference. Koontz said he recently attended his 35th class reunion, and his classmates contributed $383,000 to the Loyalty Fund.

Koontz has been involved with the Medical Alumni Association for many years. He also has been involved with other areas of the University, including service on the Board of Visitors and as chairman of the Forsyth County Morehead Scholarship Committee. Koontz said he has always found ways to give back, both financially and through his time.

"It's very important for me to have ties with the School of Medicine," he said. "I feel I have a debt I need to pay to the medical school for the privilege of becoming a physician."

Development Notes

Sabra A. Woodard, MD '76 Supports Endowment Campaign

Woodard

Dr. Sabra A. Woodard is grateful for the scholarship support she received as a UNC medical student in the 1970s. Then a divorced mother of two small children, the North Carolina native relied on scholarship aid and loans to help with everything from childcare, to tuition, to the utility bills in married student housing.

Today, Woodard is a radiologist with a specialty in nuclear medicine at Rex Hospital in Raleigh. A 1972 UNC undergraduate and a member of The UNC School of Medicine Class of 1976, Woodard recently began making gifts to the Loyalty Fund. This year, while celebrating her class's 25th reunion, she started thinking. "I realized that I enjoy a wonderful job and a very secure future because I was able to get educated in medicine with the help of scholarships," she said. "I never want to forget what the medical school did for me, and that's why I wanted to give something long-lasting back to the university."

So Woodard decided to make a major commitment to the School of Medicine through the Medical Alumni Endowment Campaign. She has established The Sabra Alderman Woodard, MD, Loyalty Fund Scholarship with a 10-year pledge of $100,000, and has even added the endowment fund to her will.

"I know that there are other people who would make really good physicians, but they may not have the money," said Woodard, now a mother of three and a grandmother. "And I know that the cost of medical school in Chapel Hill is going up over the next few years. I just want to make sure that there are funds for people like me who couldn't have gone to medical school otherwise. I hope this helps other people start thinking about doing something similar, because it gives the university a lot of flexibility and stability."

Grisham Professorship to Serve as Legacy for Pathology

Grisham

For over a quarter century, Joe Grisham, MD, served as the distinguished and popular leader of the Department of Pathology and Laboratory Medicine, dramatically expanding its service responsibilities, research enterprise, and teaching activities. As department chair from 1973-99, his vision and leadership brought about the union of pathology and hospital laboratory medicine at UNC. He broadened the research accomplishments of the department, dramatically increasing NIH funding during his tenure. A dedicated teacher, he expanded graduate education opportunities and strengthened the residency training program to make it one of the best in the nation.

And he did it all while serving as an outstanding role model, said his successor, Charles Jennette, MD. "Even when he was burdened with administrative responsibilities, Joe always maintained an active role in teaching and participated in the service activities of the department. He led by good example."

Dr. Grisham, a Tennessee native who is internationally recognized for his research on the pathogenesis of liver cancer and the role of liver stem cells in health and disease, has remained an active and valuable member of the department even after stepping down as chair. He is still a full-time faculty member and Kenan Professor of Pathology and Laboratory Medicine. During the 1999-2000 academic year, he was awarded a prestigious Fogerty Scholarship to pursue research at the National Cancer Institute.

To honor his many contributions and to ensure that UNC will continue to benefit in his name, his department and admirers have launched a fundraising campaign to create The Joe Wheeler Grisham Distinguished Professorship in Pathology and Laboratory Medicine. The goal of the campaign, which was launched in November, is to raise over $500,000 to permanently endow this professorship.

The endowed professorship will be a lasting legacy to Dr. Grisham that will help ensure that the department continues to maintain the excellence from which all current and former faculty and trainees have benefited. The department seeks to raise $400,000 in private contributions, which will secure additional matching funds from the legislature that will allow this professorship to have an even greater impact. All donors will be recognized in the Medical Foundation's Donor Report, released in the fall of 2001.

The honor of the title and the added financial resources that will be available to the holder of the Grisham Professorship will help the department recruit or retain an outstanding faculty member with the potential to contribute to UNC in ways similar to those in which Dr. Grisham has contributed, Dr. Jennette explained. And because the professorship is not constrained to any one area of research or service, the department will have the flexibility to choose an outstanding candidate in any area of pathology.

Earl Jenkins, MD, ('77), a pathologist in Rock Hill, S.C., who trained under Dr. Grisham in the 1970s, was pleased to be named one of the tri-chairs for the campaign. "I am participating for three reasons. First, because of my appreciation of and my pride in the University of North Carolina School of Medicine and the entire UNC-Chapel Hill facility as a cornerstone of my professional career and success. Second, out of my respect for Dr. Grisham as chair of the Department of Pathology during my resident years and his support and confidence in me as both a resident and chief resident. And third, my support of Charles Jennette as current chairman and my desire for continued excellence in pathology training and research at UNC."

If you would like to contribute to the The Joe Wheeler Grisham Distinguished Professorship in Pathology and Laboratory Medicine, contact Mary Ollila of The Medical Foundation of North Carolina Inc. at (800) 962-2542.

Grisham Professorship Steering Committee
Tri-chairs
John Benson, MD '83
Jim Maynard, MD '76
Earl Jenkins, MD '77

Committee members
Walt Avery, MD '68
Wallace Baird, MD '73
Ron Edwards, MD '65
Jane Lysko-Isbey, MD '86
Charles Jennette , MD '75 *Ad-hoc member, department chair*

Loyalty Fund Campaign kicks off

Class of 2001 Loyalty Fund Campaign co-chairs Robert Marshall and Priya Rajan (front row center) are shown with Robert Bashford, MD,'71 (seated far left), recipient of the first Medical Alumni Distinguished Teaching Professorship, and members of the Steering Committee at their organizational meeting in March.

Elizabeth Amend is now the associate director of development at the Bowles Center for Alcohol Studies. Amend will focus on providing information about Center research programs to those in the community and around the country. She will identify and interest people concerned about the destructive effects of alcoholism in their families, friends, workplace and society. Her work will combine educational activities and outreach.

Amend will work to involve both old and new friends of the center in campaigns to sustain and expand research and treatment programs. Her efforts will unite those who want to invest their time and resources in the activities of the center.

A native of North Carolina, Amend, has many links to UNC. In 1991, she worked on special projects for UNC Playmakers theatre. She joined the UNC School of Medicine Arthritis Center in 1995 to build a research development program and successfully raised several million dollars for arthritis research.

Phifer Crute resigned her position as senior development officer for the N.C. Children's Hospital to assume the role of Director of Donor Relations at the Medical Foundation. In her new position, Crute focuses on providing stewardship activities for major donors to the School of Medicine and UNC Hospitals.

Crute, a N.C. native, has worked in development for more than 10 years, including for the N.C. Museum of Art and Carolina Ballet. She has worked with the foundation for five years, and is a 1989 graduate of UNC.

Crystal Hinson joined the Department of Psychiatry in August 1999 as director of development and public relations. In her current role, she is responsible for the Department of Psychiatry's fundraising, volunteer activities, alumni events and public relations. She also coordinates activities between the department of psychiatry and The Medical Foundation of North Carolina, Inc.

Hinson received her bachelor's degree from the University of North Carolina and went on to complete her master's degree at Appalachian State University. Prior to her work at UNC, Hinson lived in Boone, NC, where she served as Director of Development for the College of Fine and Applied Arts at Appalachian State. Hinson resides in Durham, NC, and enjoys traveling and volunteering in her community.

Greg Holliday joined the staff of the Medical Foundation in January as senior development officer for UNC Children's Programs. Greg will serve as the primary fund development officer for the N.C. Children's Hospital.

Holliday comes to Chapel Hill from Asheboro, where he was director of special events for the North Carolina Zoological Park. A native of Indiana, he received a bachelor of arts degree from Butler University in Indianapolis, where he studied fashion merchandising and marketing. Holliday spent two years in the fashion industry working between offices in Indianapolis, and New York. He then obtained a position as marketing director with a major shopping center developer, where he managed marketing and advertising programs at various shopping centers in the southeast.

In his new position, Holliday will work directly with the Department of Pediatrics and the N.C. Children's Hospital to satisfy a growing interest in fund raising special events. He has already dedicated time and energy to the UNC Dance Marathon and just wrapped up work on the 13th Annual Carolina Kids Classic and the Seventh Annual Eric Montross Camp, both held in June.

Mary Ollila is now a senior development officer at the Medical Foundation and will work with Special Projects. As senior development officer, she is focusing on the Medical Alumni Endowment Campaign, a $7 million initiative. Ollila is working with Jane McNeer, the Medical Foundation vice president, to obtain major gifts from alumni to endow scholarships, professorships and grants. So far just over $3 million has been raised. Ollila is also working with Dr. Charles Jennette on the Grisham Professorship for Pathology.

Ollila graduated from Miami University in Oxford, Ohio, in 1986 with a bachelor's degree in systems analysis with a special interest in production and operations management. After graduation, she moved to Columbus to work for Ernst & Young as an information systems consultant. In 1989 she shifted careers into development, working in the leadership and major gift fund-raising area for the United Way of Franklin County in Columbus. In 1995 she moved to Los Angeles, where she continued her career with United Way as vice president. In 1998 Ollila moved to Chapel Hill working as a consultant.

Stephanie C. Stadler has moved from Medical Alumni Affairs to the Medical Foundation. She is now senior development officer and will focus on raising unrestricted funds from medical alumni for the Loyalty Fund.

Stadler will co-manage with Brent Thomas 11 class reunion campaigns and nine county area campaigns. She will work with the volunteers associated with campaign committees, which work to receive support for student scholarships/programs, distinguished teaching professorships, the Health Sciences Library and other areas of identified need within the School of Medicine.

Stadler, a graduate of UNC, has worked in the Medical School for several years, including eight years as assistant to the associate dean for clinical affairs. For the last 11 years, while serving as executive assistant, she managed programs support by the Medical Alumni Loyalty Fund in the office of Medical Alumni Affairs.

Annual banquet offers kudos for service

Lori and Ken Blau, MD,'81

Darlyne Menscer, MD,'79, and Marvin McCall, MD,'56, a DSA recipient.

Bobby Rimer, MD, a DSA honoree.

Charles Sawyer III, MD,'63, right, a DSA recipient, chats with Ernest Craige, MD.

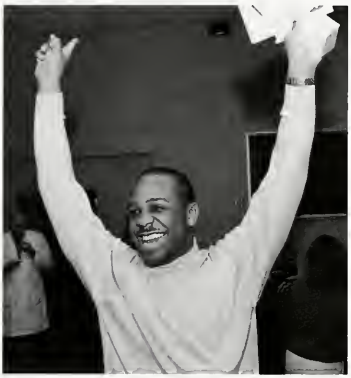
Dean Jeffrey Houpt, MD, left, and Paul Viser, MD, '84, right, pose with volunteer leadership of the Loyalty Fund county and class campaigns for 2000-01.

Ira Abrahamson, MD,'46, accepts his DSA recognition.

George F. Sheldon, MD, left, this year's Distinguished Faculty Award recipient, talks with former Dean Stuart Bondurant, MD.

G. Philip Manire, PhD, sits with DSA winner Lucia Hudson.

Match Day 2000



On March 22 – "Match Day" – 155 graduating medical students at the University of North Carolina at Chapel Hill learned where they will spend the next several years completing their residencies.

This year, 83 percent of UNC-CH medical students were matched with one of their three top choices during the computerized process compared with 85 percent nationally. Sixty-three percent received their first choice, compared to the U.S. average of 60.5 percent. From UNC, 9 percent are entering first-year placements in family medicine, 20 percent in internal medicine, 1.3 percent in medicine-pediatrics, 11 percent in OB/GYN and 12.3 percent in pediatrics.

Match Day is eagerly anticipated by the graduating students, who bring their parents, spouses, children and friends with them to celebrate their good fortune or, in fewer cases, commiserate their disappointment.

"As a group, our students are incredibly accomplished and talented people, and Match Day is just one more manifestation of their achievements," said Georgette A. Dent, MD, associate dean for student affairs.

Match Day is organized by the National Resident Matching Program, a private, not-for-profit organization sponsored by the American Board of Medical Specialties, the American Medical Association, the Association of American Medical Colleges, the American Hospital Association and the Council of Medical Specialty Societies.

Anesthesiology
Christie, Angus Andrew
UNC Hospitals, Chapel Hill

Costabile, Sean Vincent
Vanderbilt Univ Medical Ctr, Nashville, Tenn.

Hauser, Justin Bradley
UNC Hospitals, Chapel Hill

Javelona, Thomas L P
UNC Hospitals, Chapel Hill

Marshall III, Robert Nelson
UNC Hospitals, Chapel Hill

McDevitt, Michelle Leigh
UNC Hospitals, Chapel Hill

Sair, Farrukh Iqbal
Hosp of the U of Pennsylvania, Philadelphia

Schlichter, Rolf Alexander
U Penn Health Systems/Presby, Philadelphia

Tsai, Tony Potung
St Lukes - Roosevelt Hospital Center, New York

Williams-Toone, Deitra L
Wake Forest U Baptist Med Ctr, Winston-Salem

Dermatology
Fangman, William Leo
Duke University Medical Center, Durham

McLeod, Tonya S
Emory University School of Medicine, Atlanta

Emergency Medicine
Bates, Craig Guy
MetroHealth Medical Center, Cleveland, OH

Lavenhouse Jr, Clifton
UNC Hospitals, Chapel Hill

Look, Rodney Bryce
Brigham & Women's Hospital, Boston

Overcash, Jeffrey Scott
UNC Hospitals, Chapel Hill

Peck, Clifford Robert
Maine Medical Center, Portland, Maine

Family Practice
Barrett, Elizabeth Grier
Thomas Jefferson University, Philadelphia

Bullard, Tracy Elizabeth
Southern Regional AHEC Fam Res, Fayetteville, N.C.

Dear, Janet Kidd
Duke University Medical Center, Durham

Graham, Jenny Leigh
Montana Family Practice Res, Billings, Mont.

Lee, Tae Joon
Swedish Medical Center, Seattle

Morris, Sequita Magnolia
Anderson Area Medical Center, Anderson, S.C.

Peele, Lori Diane
Eastern VA Medical School GME, Norfolk, Va.

Roberson, Jennifer
New Hanover Regional Med Ctr, Wilmington, N.C.

Ruehsen Jr, Hans J
Maine Dartmouth Fam Prac Res, Augusta, Maine

Sawin, Shannon Mullis
UNC Hospitals, Chapel Hill

Selph, Shelley Suzanne
U North Dakota SOM & Health Sciences, Grand Forks, N.D.

Stengel, Deborah Ann
New Hanover Regional Med Ctr, Wilmington, NC

Sun, Vyvyan Ye-Lin
Trident Medical Center, Charleston, S.C.

Trost, Melanie Eileen Kirk
Duke University Medical Center, Durham

Internal Medicine
Abernathy, Elizabeth Ila
UNC Hospitals, Chapel Hill

Baer, Jefferson Tomas
Hosp of the U of Pennsylvania, Philadelphia

Bishop, Thomas Harman
Wake Forest U Baptist Med Ctr, Winston-Salem

Bridges Jr, Henry E
York Hospital, York, Penn.

Brown, Christopher G
Ohio State Univ Med Ctr, The, Columbus, Ohio

Brubaker, Beth Ann
Hosp of the U of Pennsylvania, Philadelphia

Carrizosa, Daniel R
UNC Hospitals, Chapel Hill

Childress, Donna Reefe
Carolinas Medical Center, Charlotte

Colford, Cristin Mulderig
UNC Hospitals, Chapel Hill

Eifrig Jr, David E
New Hanover Regional Med Ctr, Wilmington, N.C.

Fangman, William Leo
UNC Hospitals, Chapel Hill

Foster, Michelle Lynette
Carolinas Medical Center, Charlotte

Fried, Daniel Benjamin
New Hanover Regional Med Ctr, Wilmington, N.C.

Gage, Jeffrey Andrew
Moses H Cone Memorial Hospital, Greensboro

Gill, Kristen Teresa
University of Maryland Medical Ctr, Baltimore, Md.

Gray III, Lee Virdis
Carolinas Medical Center, Charlotte

Ho, Vicki Cathy
UNC Hospitals, Chapel Hill

Hoffman, Mari Allison
New England Medical Center, Boston

Hsu, Shiao-Wen David
U Texas Southwestern Med Sch, Dallas

Jensen, Brian Colwell
Brigham & Women's Hospital, Boston

Kontos, Jimmy Larry
George Washington University Hospital, Washington

Lee, Bruce Minshik
U Rochester/Strong Memorial, Rochester, N.Y.

McLeod, Tonya S
Carolinas Medical Center, Charlotte

Miller III, Russell Raymond
University of Virginia, Charlottesville, Va.

Miller, Alison Nemeth
Vanderbilt Univ Medical Ctr, Nashville, Tenn.

Morton, Emma Brown
Brigham & Women's Hospital, Boston

Neuharth, Kristen Lynn
University of Connecticut, Farmington, Conn.

Scott, Georgia Lea
UNC Hospitals, Chapel Hill

Shimpi, Rahul Arun
Duke University Medical Center, Durham

Smith, Charles Shiangfei
Brigham & Women's Hospital, Boston

Sturgill, Stephanie Bialas
UC San Diego Medical Center, San Diego, Calif.

Taylor, Benjamin Blaine
U Alabama Hospital - Birmingham, Birmingham, Ala.

Teague, Carmen Icard
Carolinas Medical Center, Charlotte

Timberlake, Rufus Johnston
U Rochester/Strong Memorial, Rochester, N.Y.

Tullo, Teresa Louise
Moses H Cone Memorial Hospital, Greensboro

Umar, Ramsey Kamel
U Michigan Hospitals, Ann Arbor, Mich.

Vo, Nam Dai
UNC Hospitals, Chapel Hill

Medicine - Pediatrics

Juliano, Jonathan J
U Minnesota Medical School, Minneapolis, Minn.

Mah, May Ling
UNC Hospitals, Chapel Hill

Neurological Surgery

Kilpatrick, Michaux R
UNC Hospitals, Chapel Hill

Obstetrics/Gynecology

Alston, Pamela Kaye
Wake Forest U Baptist Med Ctr, Winston-Salem

Archie, Anne Bond
Carolinas Medical Center, Charlotte

Bass, Lawrence Adrian
New Hanover Regional Med Ctr, Wilmington, N.C.

Beatty, Zoe A
Milton S Hershey Med Ctr Prog, Hershey, Pa.

Boy, Jennifer Dawn
Hosp of the U of Pennsylvania, Philadelphia

Dixon, Melanie Heather
Mayo Graduate School of Med, Rochester, Minn

Floyd, Serina Eisha
Duke University Medical Center, Durham

Geller, Elizabeth Joanne
UC Irvine Medical Center, Orange, Calif.

Highsmith, Aquilla Lynette
Keesler Air Force Base, Biloxi, Miss.

Johnson, Krista L
UNC Hospitals, Chapel Hill

Kim, John Chae
Palmetto Richland Memorial Hospital, Columbia, S.C.

Malizia, Beth Anne
U Alabama Hospital - Birmingham, Birmingham, Ala.

Proctor, Asha Kilola
Carolinas Medical Center, Charlotte

Rahman, Sameena
Univ of Massachusetts Programs, Worcester, Mass.

Rajan, Priya Varadha
UC Irvine Medical Center, Orange, Calif.

Richardson, Christin Neal
UC San Diego Medical Center, San Diego, Calif.

Spruill, Steven Carl
Univ Hlth System - Eastern Carolina, Greenville, N.C.

Orthopedic Surgery

Byerly, Faera Ledford
New England Medical Center, Boston

Gallagher, Michael Dennis
McGaw Med Ctr Northwestern U, Chicago

Norcross, Jason Patrick
U Texas Med Branch Galveston, Galveston, Texas

O'Malley, Aran Marino
U Tennessee COM - Memphis, Memphis, Tenn.

Phadke, Parag Madhav
Carolinas Medical Center, Charlotte

Schimizzi, Aimee Lynn
UC San Diego Medical Center, San Diego, Calif.

Toulson, Charles Ernest
Johns Hopkins Hospital, Baltimore, Md.

Otolaryngology

Hardy, Stuart McDowell
UNC Hospitals, Chapel Hill

Heavner, Steven Brett
U Michigan Hospitals, Ann Arbor, Mich.

Pathology

Carter, Alicia Lynette
UNC Hospitals, Chapel Hill

Falls, Evelyn Louise
Duke University Medical Center, Durham

Michael, Davonia N Wagner
Wake Forest U Baptist Med Ctr, Winston-Salem

Pediatrics

Booker, Millicent Candene
Duke University Medical Center, Durham

Campbell, Cynthia Heather
Carolinas Medical Center, Charlotte

Cinniger, Julia Carmen
U Rochester/Strong Memorial, Rochester, N.Y.

Cisco, Michael Joshua
UNC Hospitals, Chapel Hill

Cooper, Alan W
UNC Hospitals, Chapel Hill

Forcier, Tara Anne
U Minnesota Medical School, Minneapolis, Minn.

George, M Susan
Montefiore Medical Center, Bronx, N.Y.

Greenlee, Cynthia Renee
Univ of Louisville School of Medicine, Louisville, Ky.

Hoover, Michael Shane
Medical Univ of South Carolina, Charleston, S.C.

Houston, Shelley Adkins
UNC Hospitals, Chapel Hill

Jackson, Juliana Shawn
UNC Hospitals, Chapel Hill

Lindell, Keri Ann
University of Connecticut, Farmington, Conn.

McGee, Janey Roxanna
Univ of Washington Affil Hosps, Seattle

Partin, Sydney
Duke University Medical Center, Durham

Peterson-Carmichael, Stacey
UNC Hospitals, Chapel Hill
Rowe, Elizabeth Sue
Univ of Utah Affil Hosps, Salt Lake City, Utah

Simon, Tamara Danielle
U Colorado School of Medicine, Denver

Taylor, Shelly Renee
Medical College of Wisconsin, Milwaukee, Wis.

Vafai, Radiance Elizabeth
Palmetto Richland Memorial Hospital, Columbia, S.C.

Physical Medicine & Rehabilitation

Bridges Jr, Henry E
Medical College of Virginia, Richmond, Va.

Plastic Surgery

Antony, Anuja Kandanatt
Stanford University Programs, Stanford, Calif.

Harmaty, Marco Andrew
Mount Sinai Hospital, New York

Psychiatry

Adams, Felicity Ann
UNC Hospitals, Chapel Hill

Baer, Wendy Miles
Hosp of the U of Pennsylvania, Philadelphia

Benyas, Steven Isaac
Cambridge Hospital/CHA, Cambridge, Mass.

Cressman, Victoria Lee
New York Presbyterian Hospital, New York

Gibson, Debra L
UNC Hospitals, Chapel Hill
Gurkin, Brett Alexander
Medical Univ of South Carolina, Charleston, S.C.

Look, Adair Kendrick
Massachusetts General Hospital, Boston

Look, Adair Kendrick
Massachusetts General Hospital, Boston

Navarre II, J Richard
Emory University School of Medicine, Atlanta

Rich, Susan Diane
Georgetown University Medical Ctr, Washington

Robertson, Vida Barnwell
LSU Sch of Med - New Orleans, New Orleans

Schobel, Scott Allan
New York Presbyterian Hospital, New York

Urakubo, Ari
UC San Francisco, San Francisco

Radiology - Diagnostic

Bishop, Thomas Harman
UNC Hospitals, Chapel Hill

Gage, Jeffrey Andrew
University Of South Florida, Tampa, Fla.

Wessell, Daniel Edward
Barnes-Jewish Hospital, St Louis, Mo.

Radiology - Oncologic

Fried, Daniel Benjamin
UNC Hospitals, Chapel Hill

Mitsuyama, Hiroki
Univ of Washington Affil Hosps, Seattle

Surgery

Bowen, Josie Barnes
Univ Hlth System - Eastern Carolina, Greenville, N.C.

Burns, Justin M
Carolinas Medical Center, Charlotte

Heavner, Steven Brett
U Michigan Hospitals, Ann Arbor, Mich.

Houston, Michael Anthony
UNC Hospitals, Chapel Hill

Kelso, Rebecca Lynn
Univ of Southern California, Los Angeles

Mlinar, Kathryn Jean
UNC Hospitals, Chapel Hill

Mondi, Matthew Michael
Wake Forest U Baptist Med Ctr, Winston-Salem

Smith, David Warner
Univ of Utah Affil Hosps, Salt Lake City, Utah

Smith, Maurice Antonio
Medical College of Georgia, Augusta, Ga.

Tsai, Tony Potung
Carilion Health System, Roanoke, Va.

Vincent, Ariel Shoshona
UC San Francisco - Fresno, Fresno, Calif.

Transitional

Alukal, Joseph Paul
Boston University Medical Ctr, Boston

Sedberry, Sherry V
George Washington University Hospital, Washington

Benyas, Steven Isaac
Cambridge Hospital/CHA, Cambridge, Mass.

Berghoff, Adar Taun
Portsmouth Naval Hospital, Portsmouth, Va.

Mitsuyama, Hiroki
Mercy Hospital of Pittsburgh, Pittsburgh

Roach, Latonia Evette
Tripler Army Medical Center Program, Tripler AMC, Hawaii

Sair, Farrukh Iqbal
Frankford Hospital, Philadelphia

Walker Jr, Vester Wade
Cambridge Hospital/CHA, Cambridge, Mass.

Wessell, Daniel Edward
Western Pennsylvania Hospital, Pittsburgh

Research Briefs

New method lets researchers study heart cell messages

Scientists at the University of North Carolina at Chapel Hill are using a new way to study how heart muscle cells communicate electrical and chemical messages.

Researchers may use the new application to study what happens during or after a heart attack, when communication between cells breaks down.

Research Associate Barbara J. Muller-Borer, Ph.D., and her colleagues in the Division of Cardiology at UNC's Department of Medicine used a technique called fluorescence recovery after photobleaching, or FRAP, to study cell-to-cell communication through tiny tunnels between cells called gap junctions.

She will present the work at the North American Society of Pacing and Electrophysiology conference in Boston on May 4.

"You take a fluorescent probe, load it into your cells, and shine a laser pulse on some of them," Muller-Borer said. The laser makes the probe stop glowing, and the laser-zapped cells stop glowing.

As the fluorescent probe from surrounding cells diffuses in through gap junctions, fluorescence recovers and the zapped cells begin to glow again.

"The time it takes for the cell to recover fluorescence would be an indicator of how well the cells are coupled," or connected to each other, Muller-Borer said.

Coupling is important in heart muscle cells because the electrical signal that causes the heart to beat travels through them. If they become uncoupled, you're not going to get electrical conduction through that tissue, and the heart will stop beating, Muller-Borer explained.

Heart muscle cells can become uncoupled when their oxygen supply is cut off, as happens during a heart attack.

Other researchers have used voltage-sensitive dyes to study the flow of electrical signals through heart tissue.

"The problem with some of those dyes is they're pretty toxic," Muller-Borer said. "So once you flash the cells with the laser, the dyes become toxic and the cells die. So you get one good study and then they're dead." FRAP allows researchers to study cells over longer periods of time, Muller-Borer said.

FRAP is an alternative method to study cell-to-cell communication.

"The classic way to do these experiments is with electrical measurements," said Wayne Cascio, M.D., Associate Professor of Medicine at UNC's Division of Cardiology and one of the study's authors. "You inject a current into the muscle and you measure the voltage between two electrodes along the path of that current flow. Gap junctions affect that voltage."

But electrodes are not useful for studying how gap junctions work at the cellular level, Cascio said. "So this would provide a way to look at cell-to-cell communication at the level of single cells in cultures of heart cells.

"We're also interested in using FRAP to study how common diseases such as hypertension, ischemic heart disease and heart failure affect the formation and function of gap junctions," Cascio added. "The number and distribution of gap junctions are affected by these conditions and may contribute to some of the adverse consequences of these diseases. For this reason, we expect that the FRAP technique will further our understanding of how cell-to-cell communication contributes to heart problems."

This research was supported by a grant from the National Institutes of Health and the American Heart Association.

Steve Baragona

UNC symposium looks at alcoholism

A symposium on genes and genes delivery for diseases of alcoholism is attracting an international gathering of scientists to the University of North Carolina at Chapel Hill.

The symposium, May 7-10, is co-sponsored by the UNC Bowles Center for Alcohol Studies, The National Institute on Alcohol Abuse and Alcoholism, The UNC-CH School of Medicine, The North Carolina Biotechnology Center, and GlaxoSmithKline."Diseases of alcoholism have a significant genetic component and are very common because alcohol abuse is so common," said Fulton T. Crews, professor of pharmacology and psychiatry and Bowles Center director. "In many diseases of alcoholism there is, for example, cell death involving genes and gene pathways. Now we have some key technologies that give us the ability to understand these processes and to eventually intervene in them."

Among recently emergent technologies are gene chips or microarrays by which changes in the cascade of hundreds of genes can be observed simultaneously during a disease process. Gene delivery is another complementary set of technologies by which scientists can change only one gene selectively to determine how other genes are altered 'downstream' of a single gene change using microarrays.

"With this technology we can investigate the mechanisms of the pathology or determine if delivery of a specific gene to cells can prevent the pathology," Crews explained.

"This symposium brings together the world's experts on gene delivery and gene analysis using microarrays with the idea that these methodologies together will give us the power to cure diseases of alcoholism."

Among the many speakers are William A.

2001 Graduation

Dean Jeffrey L. Houpt, MD, handed out 164 diplomas at this year's medical school graduation on May 20 in Memorial Hall. Other festivities that weekend included the Senior Gala, where senior awards were presented.

Carlezon, Jr. of Harvard Medical School who has used viral-mediated gene delivery to change addictive behavior in animals. R. Aldron Harris of the University of Texas has shown through microarray expression that many genes in the brains of alcoholics differ markedly from that of nonalcoholics.

"Our own Ronald G. Thurman, professor of pharmacology and nutrition, is on the verge of blocking the oxidative stress that alcohol causes to the liver, thus curing the development of liver fibrosis and cirrhosis," Crews, said.

"In presentations on fetal alcohol syndrome, we have H. Scott Baldwin of Children's Hospital of Philadelphia who has developed strategies of gene delivery to the fetus. And Kathleen Sulik, professor of cell and developmental biology and anatomy here at UNC whose current studies involve agents that block the effects of alcohol on the fetus, including alcohol-associated birth defects," he added. "There is much in the way of exciting molecular genomic science under discussion here."

Les Lang

Alumni Notes

50s

R.J. "Jack" Blackley, MD, CM '53, retired and is now working part-time as a consultant with the N.C. Division of Mental Health, Development Disabilities and Substance Abuse Services. He enjoys working part-time, spending time with family and friends and is looking forward to the 50th UNC medical reunion and spring weekend in April.

60s

Hisashi Kajikuri, MD '60, is a thoracic and vascular surgeon in Monterey, Calif. He recently was elected to the board of trustees of Community Hospital of the Monterey Peninsula, the Community Hospital Foundation for a three-year term ending in 2004.

70s

Lewis Patrick Warren, MD '76, went to Duke University for radiology residency in 1986. He has been in Wilmington since 1991. During his spare time, he became a pilot and has taught scuba diving. He and his wife Jamie ask you to look them up if you are near Wilmington. You can contact him at pwarren@wilmington.net.

Sam Selden, MD '77, has been a dermatologist in Chesapeake, Va., for 20 years. He is on the faculty at Eastern Virginia Medical School, and this year was elected president of the Virginia Dermatological Society.

Robert W. Patterson, MD '78, was appointed instructor at the UNC Department of Family Medicine. He will maintain a full-time family practice in Sanford, N.C.

80s

R. Lee Jobe, MD '87, is now a partner of Wake Heart Associates in Raleigh. Along with his wife Donna, the couple has two children, Tyler, 10, and Lydia, 5.

90s

Anthony Propst, MD '92, is the director of reproductive surgery at Wilford Hall Medical Center. In June 2000 he completed his fellowship in Reproductive Endocrinology at Brigham and Women's Hospital in Boston, Mass. He and his wife, Heidi, have twin daughters, Elena and Isabela, who are 18 months old.

Randal P. Bast, MD '93, is a surgeon with Caldwell Surgical Associates. He would like to announce the Jan. 12 birth of his son Isaac Evans Bast. He joins a sister, Kathryn Grace, 3, and brother Aidan Hunter, 2.

Eileen M. Raynor, MD '93, is the assistant professor of otolaryngology. She welcomed her son, Logan Foster on Nov. 16.

Tony Herndon, MD '95, lives in Wethersfield, Conn. with his wife Elena and twins, Samuel Anthony and Katherine Ellen. He is pursuing a fellowship in pediatric urology this year in Indianapolis, Ind., at Riley Children's Hospital.

Elena Herndon, MD '95, passed board in adult psychiatry and is pursuing a fellowship in child and adolescent psychiatry. She and her husband, Tony, welcomed twins, Samuel Anthony and Katherine Ellen, on Oct. 31.

Patrick O'Brien, MD '95, is a fellow in Musculoskeletal Radiology at Brigham and Women's Hospital in Boston through June 2001. He is taking a position at Northwest Imaging in Kalispell, Mont., beginning in July. He completed his residency in radiology at the University of New Mexico in June 2000. Contact him at jonnypolite@hotmail.com.

Robert C. Miller, MD, '98, recently completed a term as resident coordinator for District III of the American Academy of Pediatrics. He served on the board of directors for the resident section of the AAP and coordinated resident activities for the five states (Delaware, Maryland, Pennsylvania, New Jersey, West Virginia) and the District of Columbia contained in District III.

President's Letter

I would like to congratulate Paul Viser for his leadership and enthusiasm this past year as president of our Medical Alumni Association. I have especially enjoyed his presidential messages in the *Medical Alumni Bulletin*. I doubt you will find me as articulate as Paul.

Those of you who were at our annual banquet on April 27 enjoyed a wonderful night of camaraderie and food. There were over 300 medical alumni present for this gala at the Morehead Planetarium. I believe everyone there had a wonderful evening. I could not help but think about the contrast and the enthusiasm of our Medical Alumni Association versus the apathy of the physicians here in Winston-Salem.

Another hat I wear in my duties is that of president of the medical staff at Forsyth Medical Center. We have over 500 physicians on our staff. Over the past year my major problem has been to deal with the apathy of our staff toward the hospital. Recently we held our annual retreat in Greensboro at the Grand Over Resort on a Friday evening and again on Saturday morning with free golf thrown in that Saturday afternoon. Nine physicians turned out for the Saturday morning session. The reason for that poor attendance is a matter I will probably discuss with you later this year. Those of you at the Spicer-Breckenridge lecture heard from Dr. Kenneth Ludmerer concerning the angst relating to medicine and physicians today.

I relate the above to you to happily contrast my situation in Winston-Salem with our Medical Alumni Association. Over the past years we have enjoyed steady growth in our loyalty fund, attendance has been good at our meetings and overall interest is improving with our association. What is the difference? We have in place a superb internal staff that does a wonderful job organizing our efforts both for continuing education and fundraising. But more importantly, I believe, is our love for this great university and our gratitude for those professors who have left a lifelong indelible mark on our lives. We also have the opportunity to continue to renew those friendships with our fellow classmates and now physician friends. Next, and most important, is our opportunity to return the privilege this university gave us by allowing us to enter and then graduate from our great medical school.

This year, I intend to remind all alumni of that debt of gratitude we owe this medical school for the distinct privilege of being a doctor of medicine. I learned many things during my years in Chapel Hill which have stood me in good stead in my career as a surgeon. Hard work, attention to details and having fun are my priorities. I promise to work hard for you this year but most importantly, I hope we will all have lots of fun. I look forward to seeing and meeting as many of you as I can over the next year.

Thomas J. Koontz

Thomas J. Koontz, MD,'66

CME/Alumni Calendar

July 14 – Chapel Hill
CMDS II Training Conference 2001

July 20-22 – Amelia Plantation, Amelia Island, Fla.
Heart Failure Management 2001

July 28 – East Carolina University - Greenville
CMDS II Training Conference 2001

July 29 – The Carolina Inn, Chapel Hill
Promoting Student Success: Clinical Assessment and Management of Learning Differences

August 24-25 – White Sulphur Springs, W.Va.
MRNC Board Retreat: Developing Clinical and Socioeconomic Influences on Quality of Care

Sept. 6-8 – The Friday Center, Chapel Hill
NICHQ/CERTs Autumn Institute

Sept. 8 – Chapel Hill
CMDS II Training Conference 2001

Sept. 21-22 – The Friday Center, Chapel Hill
3rd Annual Herbal Medicine Conference

Sept. 21-23 – Williamsburg, Va.
Ross OB-GYN Society Annual Meeting

Sept. 28-29 – The Friday Center, Chapel Hill
Wound Care Management

Sept. 28-30 – The Friday Center, Chapel Hill
UNC RSRC Clinical Instructor Seminar Series 2001 – Part 1

Oct. 5 – The Carolina Club, Chapel Hill
Fall Medical Alumni Weekend CME Course

Oct. 14-16 – Renaissance Orlando Resort, Fla.
2001 Orlando Breast Imaging and Digital Mammography Conference

For more information, go to www.med.unc.edu/alumni and www.med.unc.edu/cme.

Estate Planning Notice

Many individuals would like to make a major gift to the UNC medical center, but cannot commit current assets for such a purpose. Through a will, however, anyone can make a more significant gift than they might ever have thought possible by designating a specific sum, a percentage, or the residue of their estate for the benefit of the medical center.

To provide a bequest, simply include a paragraph in your will naming The Medical Foundation of North Carolina, Inc. as a beneficiary. For example:

"I give, devise and bequeath (the sum of $_____) or (_____% of my estate) or (the residue of my estate) to The Medical Foundation of North Carolina, Inc., a 501(C)(3) created to maintain funds for the UNC medical center with principal offices located at 880 Airport Road, Chapel Hill, North Carolina."

This language creates an unrestricted bequest for use by the medical center when and where the need is greatest, or you may specify that your gift be used for a particular purpose.

For further information on bequests, contact Jane McNeer at (919) 966-1201, (800) 962-2543, or jmcneer@email.unc.edu.

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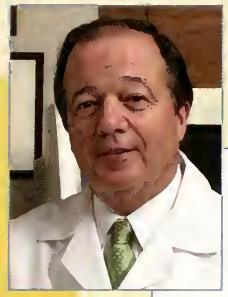
Fall 2001

Medical Alumni Bulletin

School of Medicine, University of North Carolina at Chapel Hill

At last!

Special Report: The gala debut of the new N.C. Children's and Women's Hospitals



from the dean

The new N.C. Children's and Women's Hospitals were dedicated Sept. 8 in a grand celebration. It is truly a magnificent facility. The opening of these buildings will be a tremendous step forward for the children and women of North Carolina. Because of the significance of this achievement, I have asked the chairs of our departments of Pediatrics and Obstetrics and Gynecology to share a few words with us.

We'll hear first from Alan A. Stiles, MD, chair of the Department of Pediatrics:

The new N.C. Children's Hospital is a magnificent facility built with children and their families in mind. More important than the building is the opportunity that the physicians, nurses and other staff have to develop the first true children's hospital in North Carolina. It is fitting that the new hospital is located at UNC because this is the hospital for the people of North Carolina, and now the children of North Carolina will also have a place dedicated to their care.

Many people don't know that the majority of care provided for children at UNC is for very complicated diseases requiring highly specialized care. The hospital's staff includes all the pediatric and pediatric surgical sub-specialists, specialized nurses and other caretakers. They make up multidisciplinary teams to care for our complicated patients. The new facilities allow us to expand state-of-the-art, high-technology care while providing patients and families with child-focused, family-centered care and "one stop shopping." Also, with the excellent research going on at UNC, we can move quickly to take the new laboratory findings and bring them to our patients. Children and adolescents in our state will finally have a place where our excellent staff can deliver care in an environment that will be less intimidating and oriented to their needs.

Next we hear from Valerie M. Parisi, MD, MPH, chair of the Department of Obstetrics and Gynecology.

The Department of Obstetrics and Gynecology has a long and proud tradition of providing cutting-edge care, serving all the women of our great state and beyond. We have a magnificent health care team to serve women in a creative management scheme involving the integration of physicians, nurses and hospital and medical school leaders to provide optimum patient-focused care.

Now with the new Women's Hospital, we can provide facilities to match our team's expertise. We can also focus on family-centered maternity care, women's wellness and disease prevention education. Our new hospital was designed to promote patient convenience, choices and shared decision-making, and is sensitive and respectful of women's life stage, lifestyle and family issues. The design provides the highest level of comfort and privacy for women and their families at these stressful times. We mirror the Medical School's "bimodal" characteristics: strengths in the care of the complex patient and the ability to provide "low-tech, high-touch" primary care.

It is no surprise that *U.S. News & World Report* ranked us 10th in the nation in gynecology. Our new hospital has a dual mission of providing cutting-edge, high-tech disease management and promoting holistic, humanistic, patient-focused health care relationships, which will give all the women of North Carolina a level of health care unequaled by any other center.

I am proud and humbled by this magnificent achievement that reflects so many people's visions and holds the promise of caring for women for life.

Jeffrey L. Houpt

Jeffrey L. Houpt, MD
Dean, School of Medicine
Vice Chancellor for Medical Affairs
CEO, UNC Health Care System

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on the cover

N.C. Children's and Women's Hospitals opening

More than 1,500 people turned out Sept. 8 for the gala dedication of the new N.C. Children's and Women's Hospitals. A special report begins on page 2. *(cover photo by Brian Strickland)*

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A Historic Day

The public gets its first look at the new N.C. Children's and Women's Hospitals

by Dick Broom

U.S. Senator John Edwards

Finally, the great arrival has occurred. After five years of painstaking construction, a crowd estimated at more than 1,500 people turned out in Chapel Hill to see the new N.C. Children's Hospital and N.C. Women's Hospital.

"This is a historic day for UNC Hospitals and for the women and children of North Carolina," Eric B. Munson, president and chief executive officer of UNC Hospitals, said at the Sept. 8 dedication celebration.

U.S. Sen. John Edwards of North Carolina, whose son Jack was delivered at UNC Hospitals over a year ago, was the dedication's keynote speaker.

"One of the best hospital systems just got even better," Edwards told the crowd. "These new women's and children's hospitals will enable us to make enormous strides toward better quality health care – for all 100 North Carolina counties, and for the more than 2,500 new Tar Heels, like my son Jack, who start their lives at UNC Hospitals each year."

North Carolina has never seen anything like the new Children's and Women's Hospitals. Neither have most other states. The new hospitals are the only ones in North Carolina to offer complete inpatient and outpatient care for women and children in one convenient location. Together, the facilities encompass more than 441,350 square feet.

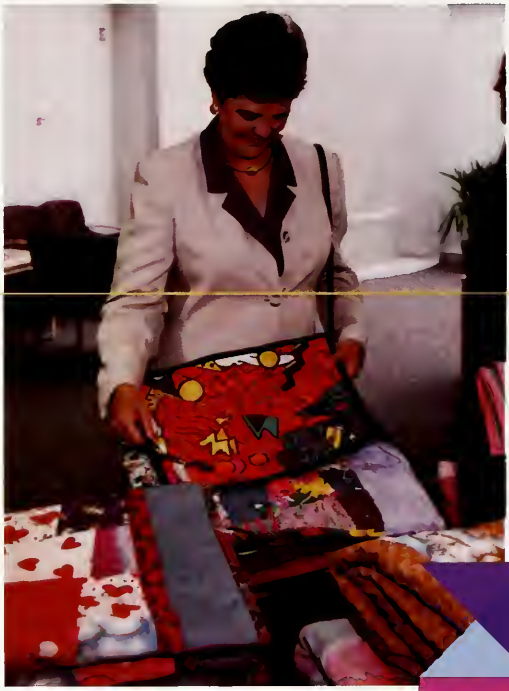
Still, the physical facilities alone — the patient rooms, operating suites and recreation areas — do not make the hospitals what they are.

"It's the staffs — the nurses and therapists and everyone else who works in these buildings — who are going to make the real difference in the care of patients and their families," Munson said.

Nearly 1,700 employees — including more than 400 nurses — will work in the two hospitals. About 100 volunteers will help provide comfort and support.

At the dedication celebration, UNC employees, dignitaries and the public got their first real look at the new hospitals. Following the speeches, tours were offered to guests, along with a variety of entertainment ranging from storytelling and puppet shows to musical and dance performances.

Among the dignitaries on hand were Molly Broad, university system president; Robert



UNC President Molly Broad

N. Shelton, PhD, executive vice chancellor and provost; U.S. Reps. David Price and Bob Etheridge of North Carolina; members of the UNC Health Care board of directors; and members of the university board of governors. In addition, a contingent of artists from California, who had learned of the new hospitals from a friend of George Sheldon, MD, former chair of the Department of Surgery, traveled to Chapel Hill for the event. The artists had created and donated a significant number of paintings and sculptures for the new buildings.

The evening of the dedication, about 300 supporters turned out for a fundraising reception hosted by The Medical Foundation of North Carolina Inc. in the new Women's Hospital lobby. Valerie Parisi, MD, MPH, Robert A. Ross Professor and chair of the Department of Obstetrics and Gynecology and Alan Stiles, MD, Brewer Distinguished Professor and chair of the Department of Pediatrics offered a heartfelt champagne toast to the future of the facilities.

Children's Hospital

Each year more than 32,000 children from all 100 N.C. counties come to UNC for over 92,000 visits for diagnosis and treatment. The new hospital includes a comprehensive Children's Outpatient Center and 136 inpatient beds. Key features and services of the new Children's Hospital include:

- Large, all-private rooms with private baths and built-in sleeping accommodations for parents
- Centralized children's clinics
- A Newborn Critical Care Center
- A Pediatric Intensive Care Unit
- A children's Intermediate Cardiac Care Unit
- The state's only accredited K-12 hospital school to help children keep up with their classroom studies during their hospital stay
- An indoor two-story, park-like recreation center that includes a play area for toddlers and a lounge and music room for teens
- A café next to the balcony that overlooks the lobby

"This building allows us to provide the children of North Carolina something they have not had — a facility that brings together complete inpatient and outpatient care for children in one location, a true children's hospital," said Dr. Alan Stiles.

Women's Hospital

The new Women's Hospital offers comprehensive wellness and specialty services for women of all ages, including primary care for women in the Triangle area and specialized medical and surgical treatment for women from across the state. The hospital's medical staff provides expert care in the areas of maternal-fetal medicine, gynecologic surgery, advanced laparoscopy, urogynecology, reproductive endocrinology and cancer. The facility has 65 beds, including 14 labor and delivery beds, plus the newborn nursery.

The Women's Hospital features:

• Large, all-private rooms with private bathrooms, conversation areas and convertible sofas for a family member to stay with the patient

• Women's primary care and specialty clinics conveniently located

• Expert maternity care in a warm, restful environment

• A newborn nursery

• Full-time lactation consultants

• The Women's Resource Center, an interactive library staffed by a health professional

• A solarium with a fountain and a skylight, offering a pleasant environment for patients and their families

• Six shared operating rooms for women's and children's surgery

• A chapel and a full-time hospital chaplain dedicated to meeting the spiritual needs of women

The two hospitals will house expanded radiology services for both children and adults, as well as a pathology laboratory, pharmacy and outpatient physical/occupational therapy services. The new hospitals stand between the N.C. Neurosciences Hospital and N.C. Memorial Hospital, which previously housed all UNC inpatient care services.

"Now, the vision ... has been realized in order to provide 21st century, state-of-the-art facilities in which to care for women and their infants," said Dr. Valerie Parisi. "Note the emphasis we have now been able to place on family-centered maternity care and women's wellness and disease prevention education, as well as a focus on patient convenience, choice and shared-decision making and responsiveness to life stage, lifestyle and family issues."

Medical Foundation Reception

600 tons of structural steel

Among the largest and most complex state building projects ever undertaken, North Carolina's new side-by-side hospitals for women and children have 441,350 square feet of floor space on nine levels. The buildings contain:

- 600 tons of structural steel
- 2,200 tons of reinforcing steel
- 23,500 cubic yards of concrete
- 2.4 miles of corridors
- 16 elevators
- 189 miles of telephone and data cable
- 2,500 phone and fax outlets
- 173 electrical panels
- 29 isolated power panels for intensive care units
- 720 smoke detectors
- 5,675 sprinkler heads

Craniofacial director brings lifelong UNC ties to new position

By Rebekah Butler

The experiences Amelia Drake, MD '81, has had at UNC extend far beyond those she has had as a physician. In fact, they extend beyond those she had while a medical student in the late 1970s and early 1980s. Dr. Drake's experiences at UNC go back to her birth at N.C. Memorial Hospital. Now Dr. Drake is being introduced to all-new experiences at UNC, having recently been appointed director of the UNC Craniofacial Center.

Dr. Drake credits her lifelong association with UNC to her parents, both of whom were on UNC's School of Medicine faculty. Having met at Johns Hopkins, they arrived in 1954 when the medical school expanded to a four-year program. Her father, Newton D. Fischer, MD, was in the Department of Surgery and served as the first chief of otolaryngology from 1952 to 1981. Her mother, Janet J. Fischer, MD, was in the Department of Medicine's division of infectious diseases.

An early memory Dr. Drake recalls of UNC is playing in her father's office as a child. "I remember examining a human skull in my father's office while waiting for him to finish rounds on a Saturday," she said.

After growing up in Chapel Hill with four siblings, all of whom became involved in health care, Dr. Drake decided to attend Cornell University in Ithaca, N.Y. "I chose Cornell to see another area in the country and to have a different cultural experience," she said.

Upon graduating from Cornell in 1977, Dr. Drake returned to Chapel Hill to attend UNC's School of Medicine. "My medical school experience was very strong. It was also wonderful to have my parents involved as faculty," Dr. Drake said.

It was during medical school that Dr. Drake decided to pursue the specialty of otolaryngology, a choice influenced by her father. Dr. Drake graduated from the School of Medicine in 1981 and then went to the University of Michigan Medical Center in Ann Arbor to complete her residency in otolaryngology. After finishing her residency, she did a pediatric otolaryngology fellowship at the Children's Hospital Medical Center of Cincinnati in Ohio.

Dr. Drake was directed to the fellowship program at the Children's Hospital by Harold Pillsbury, MD, the second chair of otolaryngology following her father. "He told me that if I wanted to return to North Carolina, pediatric ENT was an area of need within the state," she said. "This was enormously helpful in directing my course of study."

Dr. Drake completed the fellowship in 1988 and returned to UNC the same year as an assistant professor of surgery. Since 1989, she has held joint appointments as an assistant professor, then as an associate professor and full professor, in surgery and pediatrics. She was one of the first physicians in the state with fellowship training in pediatric otolaryngology.

Working with children brings Dr. Drake tremendous joy. "The medical care of children offers much reward. Many days I am impressed by the spirit of the patients and their families while dealing with serious medical conditions," she said.

Dr. Pillsbury, who has been Dr. Drake's mentor as well as colleague, described her gift for working with children: "Dr. Drake is one of the kindest, gentlest physicians you could ever meet. She is a combination of a mother and a doctor, adding a personal touch to our care of children. She makes children feel comfortable coming to the hospital and allows their parents to feel very positive about what procedures are being done."

Gerald M. Sloan, MD, professor and chief of the division of plastic surgery, also spoke of Dr. Drake's knack for working with children. "She's great with children. She has such wonderful rapport with them. With pediatrics you work with children from infancy to late adolescence and

Photos by Jay Mangum

"The medical care of children offers much reward. Many days I am impressed by the spirit of the patients and their families while dealing with serious medical conditions," Dr. Drake says.

Courtesy Amelia Drake

Amelia F. Drake

Husband: Craig
Children: Connor, 12, and Cliff, 10
Personal Interests: Rowing

she is very good at adapting her style to children of different ages. She obviously loves working with children, and it shows."

Though she works with children who have a wide range of ear, nose and throat problems, her passion is working with children with airway problems. Many of the procedures she does are to help in the removal of children's tracheostomy tubes.

"The children's lives are improved dramatically by removing their tracheostomy tubes. This was an area where I felt I could make a difference because these children have their whole lives ahead of them," Dr. Drake explained.

In helping children with airway problems, she works closely with UNC's pediatric pulmonary doctors and nurses, carefully reviewing videotapes of challenging cases before embarking on a plan. "It is the cooperative approach to patient care that I see as one of the strengths at UNC," she said

Chapman McQueen, MD, assistant professor of otolaryngology/head and neck surgery, said, "Amelia has added new dynamics to pediatric airway surgery since her arrival here at UNC. We are now on the cutting edge of pediatric airway surgery in the world, thanks mostly to her guidance and wisdom."

Beyond her work as a physician, Dr. Drake is also the recently appointed director of the Craniofacial Center, located in the School of Dentistry. She took over the position in February after the retirement of the former director Donald Warren, DDS, PhD.

The Craniofacial Center works with patients who have cleft lip, cleft palate and other craniofacial anomalies. It is made up of an interdisciplinary team of professionals, using a team approach to care for patients and their families. Before becoming director, Dr. Drake was a member of the team for 12 years.

"I was excited to assume more of a leadership role within the university. It fits in nicely with my work in pediatric ENT, because a lot of the patients who come to the center have airway or ear problems. I am also fortunate to be working with a team of compassionate and excellently qualified caregivers," Dr. Drake said.

Dr. Sloan said Dr. Drake "brings her own expertise as a pediatric otolaryngologist as well as her leadership and organizational skills. She also brings ideas and potential innovations."

Besides her recent appointment as director of the Craniofacial Center, Dr. Drake was named the Newton D. Fischer distinguished professor in otolaryngology/head and neck surgery in 1998. Dr. Drake was the first to be honored with the professorship, which bears her father's name.

She was also elected to the local chapter of the Alpha Omega Alpha society, the School of Medicine's honor society, as a faculty member. Since 1997 she has served as the group's faculty counselor.

"The position brings me closer to the medical school, which made everything possible for me," she said.

The Music Man

Rocky Mount physician focuses on patients and culture

By Bernadette Gillis

For Dan Crocker, MD '70, finding a way to say thank you is as simple as lending a hand to others. Whether he's contributing to his community in Rocky Mount, N.C., or to his alma mater, Dr. Crocker is a firm believer in giving back.

Dr. Crocker showed that he truly lives by this belief when he recently made a contribution in the amount $150,000 to the UNC School of Medicine through the Medical Alumni Endowment Campaign. Dr. Crocker included the commitment in his will to establish a Loyalty Fund merit scholarship, which will benefit students interested in studying medicine. "It was a very simple matter of adding a codicil to my will. I hope, however, to fund this commitment during my lifetime, but until then, the codicil covers my desire to give back to the medical school."

Donating such a gift to UNC was important to Dr. Crocker, who himself was a merit scholar while in medical school. It was the least he could do, he said, considering that the school played such a major role in influencing his medical career. "During my evolution as a student, I was a recipient of several funds and awards. I'm grateful to those who helped me in the past, to the School of Medicine and to the university."

Dr. Crocker has also given back to the university by participating in the Medical Alumni Association for

Photos by Brian Strickland

Daniel Lind Crocker, MD '70

Education: Davidson College, Davidson, N.C. – BS 1966
UNC School of Medicine – MD 1970

Practice: Eastern North Carolina Medical Group, P.L.L.C., in Rocky Mount, N.C.

Wife: Brenda Sue Lynch Crocker

Children: Natalie lives in Raleigh, N.C., and Sue Ellen lives in Wilmington, N.C.

Personal interests: Playing the trumpet, fishing, hunting, water sports and back packing in the West

many years. He served as president of the association from 1984 until 1985 and is currently a member of the Endowment Committee.

Dr. Crocker's involvement with UNC first began in 1966 when he received his undergraduate degree from Davidson College and then entered the School of Medicine shortly thereafter. He said UNC was the first school to which he was accepted, and making the choice to attend wasn't difficult. "I was on the waiting list for Bowman Gray, but I didn't want to wait, and I didn't enjoy my interview at Duke," he joked.

What Dr. Crocker did enjoy once he got to UNC was his experience in the hematology/oncology division. During the summers between school, he worked in the hematology research labs, under the direction of Dr. Richard I. Walker. Dr. Crocker said his love for hematology was inspired by Dr. Walker and others, including Drs. Harold Roberts, Jeff Palmer, John Parker and John Herion. "I was always happy with whatever I was studying at the time, but the people in the department guided me, so ultimately, I chose hematology."

He also had contact with doctors in other departments as well. Dr. Campbell McMillan in the pediatric hematology/oncology division, Dr. William Blythe in nephrology and Dr. James Bryan in internal medicine encouraged him while he was studying to become a doctor. "All of those people were heroes to me," Dr. Crocker said.

Once he graduated from the School of Medicine in 1970, Dr. Crocker interned and completed his first year of medical residency at Parkland Memorial Hospital in Dallas, Texas. He then returned to UNC for his senior residency and later research and clinical fellowship in hematology from 1973 until 1975.

Dr. Crocker, who grew up on a farm in Selma, N.C., wanted to return to eastern North Carolina once his fellowship ended. It was important to him and his wife, who also grew up in Selma, to remain close to both of their families, so when he was offered a chance to join to join Boice-Willis Clinic in Rocky Mount, he couldn't say no.

Specializing in internal medicine, hematology and oncology, he first joined the clinic in July 1975 and remained there until he started his own clinic in May 2000. Dr. Crocker said Dr. John Chambliss, who was a senior member of Boice-Willis Clinic at that time, had a wonderful reputation among N.C. Memorial Hospital house officers, fellows and faculty because of his outstanding patient care, and that helped draw him to Rocky Mount.

Also, the Boice-Willis Clinic philosophy was consistent with what he had enjoyed at UNC. "They accepted patients all across the board regardless of their financial background," Dr. Crocker said.

Dr. Crocker has been able to continue that philosophy of treating all patients throughout his years of practicing at the Boice-Willis Clinic and at his current practice, Eastern North Carolina Medical Group. While at the Boice-Willis Clinic, he served as the clinic's president for eight years and was able to attract many physicians to Rocky Mount, allowing the clinic to better care for a wide range of patients, he said.

Continuing his belief that patients of all financial backgrounds should receive care, he was also able to set up a satellite clinic serving a highly indigent population in nearby Enfield. "I'm proud to have been the one who shouldered the starting of the clinic. At least

"During my evolution as a student, I was a recipient of several funds and awards. I'm grateful to those who helped me in the past, to the School of Medicine and to the university."

this positively impacted one of many small eastern North Carolina communities where there is a significant indigent population."

Dr. Crocker's work in Rocky Mount goes beyond his efforts at the two clinics. He currently works with five nursing homes, including Nash Grove Nursing Home, where he serves as medical director. He said that as his patients began to get older, it seemed natural for him to continue caring for them when they moved into nursing homes. "A lot of our patients end up in nursing homes, and I've tried to make my practice a continuum of service."

He adds that his obligations are to all of his patients; it doesn't matter if they live in nursing homes. "It's not financially rewarding, but the rewards come in other ways. Treating these patients represents the continuum of care that all patients need and deserve."

Through his work at the clinics and nursing homes, Dr. Crocker has been able to have an impact on the health care of the people of Rocky Mount and surrounding communities. Dr. Crocker said he is proud of his accomplishments as a physician and sees no reason to practice anywhere else. "Rocky Mount is a place where good medicine has been practiced, and I have had no reason to uproot myself from my patients. It's also been easy for me to be an active member of the community here."

One contribution Dr. Crocker has made to his community has nothing to do with medicine. A lifelong music lover, he was instrumental in developing the Tar River Orchestra and Chorus.

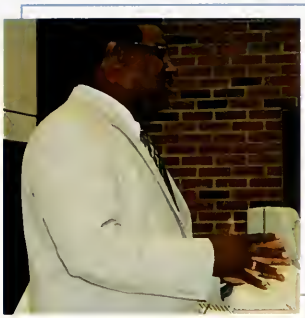
Dr. Crocker said his mother, who played the piano, encouraged her children to pursue music. His brother is a singer, and his sister is an accomplished pianist. Dr. Crocker first picked up the trumpet in the fifth grade and has played ever since. He played throughout college but stopped during medical school. However, after moving to Rocky Mount he found opportunities to play with a wind ensemble at N.C. Wesleyan College.

Then in 1986, he helped found the Tar River Orchestra and Chorus and has been the president of the board of directors for the past 16 years. He has been involved heavily with raising funds and also as a participant in several musical ensembles. "I love music, I love playing and I enjoy the people who participate along with me," Dr. Crocker said. "It's a nice diversion from health care."

Putting his personal satisfaction aside, Dr. Crocker pointed out that the Tar River Orchestra and Chorus has allowed him to give something to the entire community. "Before it began, Rocky Mount only had one choral concert a year, but now residents can enjoy seven or eight."

Dr. Crocker said his motivation for establishing the Tar River Orchestra and Chorus was to help expose the people of eastern North Carolina to as many cultural events as possible, which sometimes can be hard to find in that part of the state. "Because eastern North Carolina is less populated than other parts of the state, centers of culture are not as prevalent. This has been a major cultural effort, which has been well received."

Special EVENTS



Larry Keith, assistant dean, director of recruitment, above left, Cheryl F. McCartney, MD, above right, executive associate dean for medical education, and Georgette Dent, MD, associate dean for student affairs, spoke to incoming medical school students during annual orientation, below right.

Photos by Rebekah Butler

Kenneth M. Ludmerer, MD, professor of both medicine and history at Washington University in St. Louis, left, speaks with Stuart Bondurant, MD, UNC professor of medicine and former dean of the School of Medicine, prior to giving the 19th Spicer-Breckenridge Memorial Lecture. Dr. Ludmerer spoke on "The Coming of the Second Revolution in Medical Education."

Incorporating faith into practice and precepting

By Katherine Savage

As physicians pay increasing attention to the role of faith and spirituality in medical care, medical education is beginning to reflect this dimension of practice. Research findings indicating improved health outcomes, compared to control groups, for patients with strong religious affiliations or patients for whom prayers are offered have reinforced this trend.

Participants in the School of Medicine's Faculty Development Program in General Internal Medicine chose to focus on physician and patient attitudes and preferences regarding spirituality in the medical encounter for the collaborative research study they conducted at their seven institutions. Termed the RESPECT study, it found that "a significant percentage of patients perceive prayer (whether it is done by their doctor, with their doctor, or for their doctor) is linked to improvements in health" (J Gen Int Med 16[suppl 1]: 176). Although many of the 444 physicians in the study believe that patients' spiritual practices affect health outcomes, and "a smaller but significant number believe that physician prayer will improve patient outcomes," there is nevertheless a large gap in the prevalence of these beliefs among physicians compared to patients (JGIM: 190).

While approximately half of the physicians in the survey favored further training in spirituality and medicine, the RESPECT study found that "formal spirituality training related to medical care" has been "sparse in medical school and almost non-existent thereafter" (JGIM: 101). However, change is underway as a number of U.S. medical schools are adding courses to their curricula. Between 1994 and 1998, the number of schools teaching courses on religion and spirituality issues grew from three to approximately 50. Further evidence of the new emphasis on this aspect of health and medicine ranges from Harvard Medical School's series of conferences on Spirituality and Healing in Medicine to the formation of the National Institute for Healthcare Research, a nonprofit organization focusing on the relationship between spirituality and health that has awarded grants to 19 medical schools for curriculum development in this area.

In North Carolina, part of the traditional Bible Belt, it is not uncommon for physicians to discuss spiritual issues with patients, particularly those who are facing severe illness and who request physicians' prayers. Medical students who are assigned to community-based rotations in practices with a religious focus are exposed to a perspective that may be different from what they encounter elsewhere in their education.

Dr. Bruce Jackson, an obstetrician-gynecologist in Boone, is in a solo practice that is explicitly religious. He believes that through his vocation, he is doing God's will. Dr. Jackson found that arrogance created by medical school made him think he could fix everything; he learned that he could not. Now he wears a white coat with a lapel pin of a crescent wrench, symbolizing his belief that he is one of God's tools. He points out that the wrench is adjustable, reflecting his response to each person's individuals needs. "If people have to ask" what the wrench means, Dr. Jackson says, "we're not doing it right."

He believes that his practice conveys a message through its service-oriented approach, books that are available for his patients to read, and the fact that he will pray with and for patients. Although he emphasizes that the doctor should not ask the patient whether she desires prayers, the nurses tell patients during pregnancy or pre-operative workups, "If you want to pray, Dr. Jackson is comfortable praying with you." Dr. Jackson feels that if patients know that he is doing the best he can to do God's will, it relieves him of a burden.

Over time, Dr. Jackson's commitment to prayer has evolved into a ritual in which the staff forms a prayer circle and prays together at the beginning of each day. Dr. Jackson estimates that 60 to 70 percent of the medical students he has precepted have been receptive to his religious focus. Those who are uncomfortable do not participate in the prayer circle. He acknowledges that a student's discomfort with his approach could keep him and the student from clicking as well. However, he feels that students who are neutral toward his explicitly religious focus still find a lot

to respond to: his energy level, sense of humor, and commitment to staying up-to-date in his field.

Dr. Jackson's perception of students' gain from their time with him is borne out by student evaluations, which consistently rate him as excellent. Rhonda Vestal, who recently completed her second year of Introduction to Clinical Medicine rotations in Dr. Jackson's practice, felt as though "Dr. Jackson has a very strong bond with his patients due to their common strong faith in God." She noted that Boone is a relatively small town where people know each other well and where religion is a large part of people's lives. Therefore, "Dr. Jackson's incorporation of religious beliefs into his practice only strengthened the doctor-patient relationship." Vestal's own feeling during her time in the practice was one of admiration for the relationship that was fostered by "Dr. Jackson's willingness to pray with his patients and reassure them that God was caring for all of them, including Dr. Jackson as he provided medical care for his patients."

Dr. Richard Berry, who practices internal medicine in Whiteville, says, "I personally believe that there is a greater power, whom I call God, [who] is the ultimate healer guiding the physician and the patient in the healing process." Although he does not consider his practice to be an explicitly religious one, Dr. Berry says that his patients are aware of his beliefs. "I tell all my patients when they compliment me for healing them that I did no healing, that in essence their body did its own healing and that it is through me that God works."

While he shares his own beliefs with the students he precepts, Dr. Berry says, "I do appreciate and honor the rights of students as well as patients to believe what they want to, and in no way will I force any religion or belief on any person." The subject of religion in the practice of medicine is incorporated into his teaching from several angles. As Dr. Berry discusses with students how they would react to or interact with patients with different beliefs, he sometimes shares his own experiences with his patients who are Jehovah's Witnesses. Although he disagrees with "their beliefs and interpretations of the Bible in regard to blood and blood products, I will in no way force them to take blood products. I have on one or two occasions been the physician who had to pronounce Jehovah's Witness patients dead because of their refusal to take blood products." Reviewing the ethical implications of such experiences is an important exercise in teaching and learning.

Dr. Berry also tries to make the medical and nurse practitioner students he precepts aware of the increase of examples in the literature pointing to significant benefits to the healing process when a patient's spiritual aspect is addressed. "Just treating with medicine, and not addressing the mental and spiritual aspects of a person's disease, can sometimes not fully reach the etiology of the problem," according to Dr. Berry. He believes that it is always beneficial to treat the whole person – body, mind, and spirit – and that addressing spiritual issues with patients "is essential to complete holistic healing."

New digital imaging system revolutionizes work, patient service throughout system

By Stephanie Crayton-Robinson

From the time the radiologic technologist hits the send button, it may take hours before the patient hears, "You can go home now, Mr. Jones." That's because the process of acquiring, storing, transmitting, printing, transporting and interpreting images on film is a lengthy one.

But thanks to UNC Health Care's new Picture Archiving Communication System (PACS), the waiting time for physicians and patients has been cut.

PACS is a high-tech, digital way for any department to view a patient's X-ray information. "Film is restrictive because it can only be at one place at one time," said Jim Barba, educational PACS coordinator for the Department of Radiology. "With PACS, because it's electronic, that same imaging information is located in a central place that everyone can go to and look at simultaneously."

This new and improved way of communicating images uses special software designed to display and maintain an archive database.

"We're now in the forefront of technology," said Alicia Corbett, PACS trainer and applications programmer for the Information Systems Division (ISD).

"It'll be a good tool for teaching." At UNC, the system will operate through the Web. Once logged on to a workstation, the user can search for the images they need by physician, patient name, medical record number or date. Within minutes, PACS then indicates where the images are stored. From there with the click of the mouse, the user can pull up the desired image and adjust the system to suit his or her needs. The PACS system will allows for the images to be manipulated.

"If the image doesn't look quite like you need it to look, you can make it darker or lighter, bigger or smaller, or rotate it or flip it, so that you can see everything you need to see about that image," Barba said. "It's not something that film can do. Once it's printed it's pretty much a static picture."

PACS runs through an intricate wire connection that allows information to travel quickly from place to place. Anyone with access to UNC Health Care's Intranet can view PACS. Location is not a barrier. "My physician sitting at Highgate Family Medical Center can talk to a radiologist and both of them can view the same image and they can discuss my health," said Tom Boyd, Information Services Division programmer and analyst.

"This is truly a uniquely integrated system," Barba said. "PACS blends into the user's current work location, he or she can conference on the PC, or he or she is able to access images from home."

Photos by Jay Mangum

Jim Barba, right, educational PACS coordinator, shows the wide-ranging capabilities of PACS.

The digital imaging system uses special software to communicate a patient's X-ray information.

A faster, more diverse retrieval system means it will take less time to get much-needed diagnostic or treatment information – and less time a patient has to wait.

The PACS project is a collaboration of ISD and the radiology department, which is the first area to use PACS. Equipment was installed last December, and radiology began training its staff to use the new system the first quarter of 2001. Training for other departments is in full swing and should conclude this year. The Neurosurgery Laboratory and Ear, Nose and Throat (ENT) were pilot areas for Web access to radiology images. "This is truly an enterprise-wide system," Boyd said.

"We're trying to organize everything so that when cardiology comes on board, there are all the right holes for them to jump right on board," Boyd said. "All the tools are the same. This is just going to provide them with the means to store their data."

"As we are training various groups, I think they're beginning to realize that this new PACS system is a real time-saver," Corbett said. "The X-ray system will not go away, but in the time that it takes to prepare film, PACS has long since had that image up and ready."

50s

John L. Watters, MD '50, and his wife, Beth, live close to their five children, eight grandchildren and great-grandson, John Piper Bissonnette. The couple enjoys retirement, with Jack sometimes playing golf.

James Burrus, MD '57, serves on the American Medical Association's Senior Physician Services Board as medical director for the Cleveland County Alliance for Health. He also serves on the local hospital's foundation board. He says, "Life is good but busy since 'retirement.'"

Joel D. Conner, MD '57, retired from practicing gynecology in April after 38 years of private practice in Gastonia, N.C.

60s

Zell A. McGee, MD '61, is a professor of medicine at the University of Utah in the division of infectious diseases. In the spring he was awarded the Leonard W. Jarcho, MD, Distinguished Teaching Award for the high values he exemplifies to both students and colleagues.

Dave M. Davis, MD '63, is the director of Piedmont Psychiatric Clinic in Atlanta. He was recently visited by neurosurgeon **Ira Hardy, MD '63,** at his summer house in Cashiers, N.C.

70s

William H. Katz, MD '74, and his wife, Joan, left Maine after living there 23 years, and William has stopped practicing obstetrics. The couple now lives in Easton, Md., where William is practicing gynecology.

Margie Sved, MD '79, left Dorothea Dix Hospital in Raleigh, N.C., after over 15 years of service. She is now working half time in private psychiatry practice and half time with Wake Human Services. She has two children Sara, 15, and Eliana, 8, and also serves as a foster mother.

80s

W.L. Wells Edmundson, MD '80, began working with Raleigh Medical Group in February. His daughter, Erin, 19, plays soccer at the University of Mississippi, and his son, Brian, 16, is a sophomore at Broughton High School in Raleigh, N.C., where he plays tennis.

Gerald T. Gowitt, MD '82, was recently named chief medical examiner for DeKalb County, Ga., a suburb of Atlanta. He lives with his wife, Vivian, and their two children, Thomas and Gail. E-mail him at ggowitt@aol.com.

Liz Engelhardt, MD '85, works as an occupational medicine physician at 3M in St. Paul, Minn. She and her husband, Jim, have two children Michael, 7, and Kaitlyn, 4.

Kirsten Gross Girkins, MD '88, and her husband, Tom, celebrated the birth of their first child, Benjamin Thomas, last December. Kirsten works in emergency medicine in Charlotte, N.C.

90s

Robert Berkenblit, MD '90, is associate medical director at Montefiore Imaging Center in Bronx, N.Y. He and his wife, Kiera, celebrated the birth of their third child, Jamie Alexa, in May. Jamie joins the couple's two other children, Carly, 6, and Brett, 3. E-mail Robert at R.Berkenblit@worldnet.att.net.

Carrie Alspaugh, MD '91, and her husband, Andy, welcomed the birth of their daughter, Claire Linden in July. Claire joins two sisters, Cate and Laney.

Megan Davies, MD '91, is a medical epidemiologist with the Centers for Disease Control and Prevention. She works with the National Center for Injury Prevention and Control, which provides national leadership in preventing non-occupational injuries and controlling their severity and impact. Her current work focuses on helping state health departments develop their injury surveillance capacity.

Andrew Wallach, MD '91, a clinical assistant professor of medicine at the New York University School of Medicine, has recently been named associate director of the Internal Medicine/Primary Care Clinics at Bellevue Hospital in New York, N.Y. E-mail him at andrew.wallach@med.nyu.edu.

Edward Primka, MD '92, and **Lynda Primka, MD '92,** recently moved to Knoxville, Tenn., where Edward has joined Dermatology Associates of Knoxville. The couple has three sons, Teddy, 8, Alex, 6, and Dan, 2.

Paige Walend, MD '93, and her husband, Larry Tamburro, Md., celebrated the birth of their daughter, Olivia Anne, in June. Olivia joins the couple's two-year-old daughter, Sarah. E-mail Paige at paigelarry@mindspring.com.

Jacqueline Campbell-Sylvester, MD '94, lives in Laurinburg, N.C. In February 2000 she opened a private practice, Babies Etc. OB/GYN, PA.

Paul H. Bowman, MD '95, is the chief resident of dermatology at the Medical College of Georgia in Augusta. In 2000 he received the Medical College of Georgia Excellence in Teaching Award. In June he attended the annual meeting of the Scottish Dermatological Society, which he received a scholarship to attend from the American Academy of Dermatology.

Elena Herndon, MD '95, and **Tony Herndon, MD '95,** welcomed the birth of twins, Sammy and Katie, in October 2000. Elena has completed psychiatry board certification. Tony is currently the chief resident of urology at the University of Connecticut in Farmington. Next year he will complete a pediatric urology fellowship at Riley Children's Hospital at Indiana University in Indianapolis.

Carolyn Church Davis, MD '96, and **North J. Davis, MD '96,** celebrated the birth of Fairchild Madeline in March. Fairchild joins the couple's two-year-old son, Legend. In July, North joined a private practice pathology group in Gainesville, Ga.

Kathy L. Garland, MD '98, and **Sanjib P. Mohanty, MD '99,** were married in November 2000 in Chapel Hill, N.C. Kathy is a pediatrician at Guilford Child Health in Greensboro, N.C., and Sanjib is a resident in internal medicine at Wake Forest University Baptist Medical Center.

Erica Wolff, MD '99, was married in June 2001 in Davidson, N.C. She and her husband, Ron Verleleeren, live in Action, Mass., where Erica will complete her family practice residency this year.

2000s

Benjamin B. Taylor, MD '01, has started his internship and residency at the University of Alabama in Birmingham.

Deaths

Paul K. Perkins, CMED '29, died in July. He lived in Mocksville, N.C. His specialty was general surgery.

Jesse Caldwell, CMED '39, died in July. He lived in Gastonia, N.C. His specialty was obstetrics and gynecology.

Max Novich, CMED '39, died in November 2000. He lived in Farmingdale, N.J. His specialty was orthopaedic surgery.

George Gentry, MD '59, died in January. He lived in Roxboro, N.C. His specialty was family medicine.

Edward L. Stewart, MD '59, died in April. He lived in Clearwater, Fla. His specialty was neurology.

Shahane Taylor, MD '59, died in May. He lived in Greensboro, N.C. His specialty was ophthalmology.

Louis M. Perlmutt, MD '77, died in April. He lived in Chapel Hill, N.C. His specialty was radiology.

NIH: TWO UNC RESEARCHERS AMONG TOP 10 IN FUNDING AREAS

Two UNC researchers were among the top 10 principal investigators in their respective federal funding areas in 2000, according to the National Institutes of Health.

Dr. Richard Boucher, Kenan professor of medicine and division head of pulmonary and critical care medicine at UNC, was seventh in the list of top-funded basic research principal investigators. Nobel laureate Dr. Stanley Prusiner at the University of California at San Francisco headed the list. Boucher received $5.1 million in NIH grant funding for cystic fibrosis research in 2000.

Dr. J. Richard Udry, Kenan professor of sociology and professor of maternal and child health at the UNC School of Public Health, was second in the list of top-funded clinical, social science principal investigators (investigator-initiated grants and centers only). Dr. Donald Morton of the John Wayne Cancer Institute headed the list. Dr. Udry received $8.4 million in NIH grant funding for an adolescent health survey in 2000.

In June, the journal *Science* published a complete list of scientists in he upper echelons of federal funding.

Dr. Boucher, who also directs the university's Cystic Fibrosis/Pulmonary Research and Treatment Center, has published more than 300 articles on cystic fibrosis and gene therapy. He helped develop a gene "knock-out" mouse model for studying cystic fibrosis experimentally, conducted both animal and human trials of gene therapy for cystic fibrosis lung disease, and developed novel drugs that are being tested for the treatment of cystic fibrosis lung disease. Cystic fibrosis, or CF, is the most common lethal genetic disease in the white population, affecting one in 3,300 births.

Dr. Udry's grant is part of the UNC-based National Longitudinal Study of Adolescent Health (Add Health), which made national news with the 1997 research findings that strong and supportive ties between parents and children help protect adolescents against a variety of risky behaviors, including substance abuse, early sexual activity, pregnancy, emotional distress, suicide and violence.

NIH funding for research at UNC jumped more than 20 percent in fiscal 2000, according to new figures released in March by the federal agency. UNC faculty received $207 million in NIH funding – up from $171.3 million in 1999 – ranking 13th overall among private and public universities nationwide, and up from 14th last year.

Fiscal 2000 overall research funding at UNC topped the $375 million mark for contracts and grants awarded for research, teaching and public service – an increase of 9 percent over the previous fiscal year.

UNC STUDY PINPOINTS GENE CRUCIAL FOR FEMALE EMBRYO SURVIVAL

A gene discovered by UNC scientists appears to be crucial for female embryo survival.

A study by UNC researchers and published in the August issue of Nature Genetics journal furthers the understanding of a fundamental biological process in mammals and contributes important new knowledge to gene regulation in the developing embryo. It also has implications for problems such as fetal loss, tumor development, birth defects and mental retardation.

The report notes that the gene, called eed, when functioning normally in female mouse embryos, keeps the paternal X chromosome inactive and many of its genes shut down in early placental cells. In the new research, female embryos without a functioning eed do not survive because of problems in forming placentas.

Other studies have shown that the gene called Xist is responsible for putting the molecular brakes on the X chromosome only. Since female mammals have two X chromosomes (XX) and males have both an X and a Y (XY), an imbalance occurs because female embryos have twice as many X-linked genes.

That's where Xist comes into play. It gets switched on early in the development of the female embryo. This gene is activated from the X chromosome that's going to be shut down, which in early placental material is only the X from the father, according to Dr. Terry Magnuson, senior author of the new study and Kenan professor of genetics at the UNC School of Medicine.

"Once the paternal X chromosome is shut down, then the cells must continue to divide and keep it shut down. Until now, it's not been understood what maintains this X in an inactivated state. Now we know that eed plays a role in this process," said Magnuson.

"Without eed functioning normally, the father's X chromosome is shut down and then it comes back on. When that happens, too many X chromosome genes are active, there are problems forming placental tissue, and female embryos die."

The new findings also suggest that eed may be critical in a fundamental process known as imprinting, a phenomenon in which a specific gene is expressed, or switched on, depending on whether it is inherited from the mother or the father.

– Leslie H. Lang

WILLIAM ARENDSHORST, PHD, professor of cell and molecular physiology, has been elected interim chair of the department. He also recently served on the Executive Advisory Board to organize an international meeting on the Physiology and Pathophysiology of the Renin-Angiotension System and Angiotensin II Receptors. The meeting, sponsored by Astra-Zenica Pharmaceuticals, was held in Prague.

CHRISTOPH BORCHERS, PHD, was appointed assistant professor of biochemistry and biophysics and faculty director of the UNC Proteomics Core. His recruitment, including large investments in the proteomics core facility, was made possible by the recent UNC genomics initiative and a major, anonymous gift.

RICHARD BOUCHER, MD, professor of medicine and chief of pulmonary medicine, has received The William R. Kenan, Jr. Professorship Fund for 2001-02 to support research and scholarly expenses.

The Kenan family and The William R. Kenan Jr., Charitable Trust created the William R. Kenan Jr. Professorships and administers other Kenan-related professorships to cement the bond between outstanding faculty members and their students and to help institutions retain, recruit and reward some of the nation's top faculty.

JOHN BUSE, MD, PHD, associate professor of medicine, chief of the division of general internal medicine and director of the diabetes care center, was recently elected to the national board of the American Diabetes Association. He will serve a three-year term. Dr. Buse is a former president of the Southeast Regional Board, and has been active with the ADA for 20 years. He also serves as chair of the association's Diabetes Cardiovascular Disease Advisory Panel.

SHARON CAMPBELL, PHD, associate professor of biochemistry and biophysics, was a recipient of a 2001-02 Hettleman Prize for Scholarly and Artistic Achievement. Dr. Campbell is using nuclear magnetic resonance spectroscopy and other approaches to gain mechanistic insights into regulation of signal transduction by members of the Ras, Rac and Rho G protein families.

CULLEY C. CARSON, III, MD, chief and professor of urology, was awarded the 47th Annual Jesse H. Neal National Business Journalism Award. He was recognized for Best Editorial for The Changing Climate of Urology. The Jesse H. Neal National Business Journalism Awards were created by American Business Media in 1955 to recognize and reward editorial excellence in independent business publications.

KATE COPELAND, MD, clinical instructor and fellow of urogynecology and reconstructive pelvic surgery, and Georgine Lamvu-Schooler, MD, clinical instructor and fellow of obstetrics and gynecology advanced laparoscopic surgery, have been awarded "Training in Epidemiology and Clinical Trials" grants from the National Institute of Child, Health and Human Development.

PETER CURTIS, MD, director of the faculty development program and professor of family medicine, recently had an award named in his honor. The award recognizes people who have been key players in the mission of the Department of Family Medicine – those who recruit, retain and develop outstanding junior faculty so they can be of service to North Carolina and to help link the statewide department together. The award is named for Dr. Curtis in recognition of his lifelong contributions to the Department of Family Medicine across the state.

JEFFREY H. FAIR, MD, associate professor and chief of abdominal transplant surgery, received a Carolina Center for Public Service Grant to support Family House of Chapel Hill. The project seeks to provide affordable family accommodations close to UNC Hospitals for transplant and oncology patients who have traveled a considerable distance for evaluation or treatment of serious or life-threatening illnesses.

WESLEY FOWLER, MD, vice chair of the Department of Obstetrics and Gynecology, has been appointed chair of the Residency Review Committee for Obstetrics and Gynecology effective Jan. 1.

MICHAEL W. FRIED, MD, associate professor of digestive diseases in the Department of Medicine, received one of eight clinical center grants from the NIDDK, National Institutes of Health. The study will evaluate predictive factors and mechanisms of antiviral resistance in African Americans with chronic hepatitis C who are treated with the latest combination of pegylated interferon and ribavirin. Dr. Fried has been appointed to the Executive Committee supervising this study and is chairman of the protocol committee responsible for developing the final cooperative research protocol.

WILLIAM E. GARRETT JR., MD, chair of the Department of Orthopaedics, has been selected president-elect of the American Orthopaedic Society for Sports Medicine. He will serve as president-elect until July, when he will become vice president. He will become president of the organization in 2003.

ADAM GOLDSTEIN, MD, assistant professor of family medicine, received an Office of the Provost Award at the 2001 UNC Public Service Awards Banquet. The Provost Awards are given to recognize UNC faculty and staff who have performed extraordinary public service and/or enabled such service by others. Dr. Goldstein was presented with a framed certificate and a check for $1,000.

JOYCE HARP, MD, assistant professor of nutrition, has been named the 2001-02 winner of the Jefferson Pilot Fellowship in Academic Medicine. She will receive $20,000 over a four-year period, in equal installments of $5,000. She may use that money at her discretion to support her scholarly endeavors.

CAROL LUCUS, PHD, chair and professor of biomedical engineering, has received the department's Teaching Excellence Award for 2001.

ANTHONY MEYER, MD, Roscoe B. G. Cowper Distinguished Professor of Surgery, has been named chair of the Department of Surgery. Meyer, who had been a vice chair of the department since 1997, was named chair on Aug. 1. The previous chair, George Sheldon, MD, stepped down from the post he had served in since 1984 to devote more time to teaching, patient care and research at UNC.

Dr. Meyer earned his medical degree and his doctorate in immunology and pathology from the University of Chicago. He completed his surgical residency at the University of California at San Francisco and served as assistant professor of surgery and anesthesia at UCSF before coming to UNC in 1984. Since then, Dr. Meyer has served as chief of general surgery, director of the surgery residency program, co-director of the surgical critical care residency program, medical director of critical care for UNC Hospitals, assistant director of the N.C. Jaycee Burn Center, and director of burn research. He is a graduate of the UNC Management Leadership Institute.

EDWARD PERL, MD, Sarah Graham Kenan professor of cell and molecular physiology, received the Ralph W. Gerard Prize for Outstanding Contributions to Neuroscience by the Society for Neuroscience.

ETTA PISANO, MD, chief and professor of breast imaging, was awarded a $26.5 million grant as principal investigator for Digital Mammographic Imaging Screening Trial (D-MIST). She also has received a contract from Sectra of Stockholm, Sweden, for a project to design an FDA trial for digital mammography equipment and a contract from Medical Optical Imaging in Charlotte for a project to evaluate diagnostic accuracy of infrared imaging for patients going to breast biopsy.

HAROLD R. ROBERTS, MD, Sarah Graham Kenan professor of medicine and pathology and founding director of the Center for Thrombosis and Hemostasis, has been selected by the American Society of Hematology to receive the 2001 Henry M. Stratton Medal. The award, which consists of an honorarium and a plaque to be presented Dec. 11 at the society's annual meeting in Orlando, Fla., honors Roberts for his internationally recognized contributions to hematology. Dr. Roberts was the first U.S. physician to treat hemophilia patients with factor VIIa, a medication that has been extremely successful in treating hemophilia patients not responding to older or other products.

OLIVER SMITHIES, DPHIL, Excellence Professor of pathology and laboratory medicine, was awarded the Okamoto International Gold Medal Award.

BEAT STEINER, MD, clinical assistant professor of family medicine, was selected to receive the 2001 David S. Citron Award by the Executive Council of the Department of Family Medicine. This award, which was established in 1982, recognizes a junior faculty member who exemplifies the dedicated service and commitment to family medicine education, scholarship and health care delivery that has typified Dr. Citron's medical career. This award includes the opportunity to deliver the Citron Lecture at the Annual Statewide Department of Family Medicine Retreat.

2001-02 Loyalty Fund Scholars

The Loyalty Fund initiated the Merit Award program in 1966 with a modest stipend to six students. In the late 1980's the Medical Alumni Association developed a strategic vision to promote broader and higher levels of alumni support. increasing private gifts enabled the number of scholarships to grow from 20 in 1993 to 51 currently, each covering full in-state tuition. The awards for 2001-02 are $5,000 for first-year students, and $3,800 for second-, third- and fourth-year students. Allied Health Sciences are $1,500 each.

Merit Awards – An estimated 10 awards are made for highest honors during MS I, II and III. (MS IIIs to be determined.)

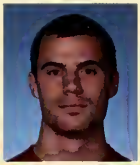
Four-Year Scholarships – Twenty-four students are supported. Six awards to MS Is for four years based on academics, leadership and financial need. Two are designated for MD/PhD students.

Fourth-Year – Generalist Scholarships - Five awards to MS IVs who have committed to a generalist residency program.

First-, Second- and Third-Year Scholarships – Three one-year awards for each class based on academics, leadership and financial need.

Allied Health Sciences – Three awards for students to be selected by the Department Chair.

Carol Albright
MSIII
MD/PhD



Michael Allingham
MSI
One-Year

Jessica Bailey
MSIV
Four-Year

Erin Bialas
MSII
Merit

Kirsten Brown
MSI
Four-Year

William Christopher Buck
MSII
One-Year

Jennifer Bushman
MSII
MD/PhD

Martin Butler
MSIII
Merit

Tara Byer
MSIII
One-Year

Lisa Cohen
MSII
Four-Year

Heather Crouse
MSIV
One-Year

Donna Culton
MSIII
MD/PhD

Michelle Curtis
MSI
One-Year
Summerlin Scholar

Carlos Ebert
MS IV
Four-Year

Stephanie Falk
MSIII
Four-Year

Matthew Foster
MSIV
Four-Year

Richard Galinski
Allied Sciences

Leila Ghassemian
Allied Sciences

Norman Gray
MSI
Four-Year
Roberts Scholar

Stacy Haponik
MSII
Four-Year

Gavin Henderson
MSIII
MD/PhD

Michele Hernandez
MSIV
Four-Year

Noah Hoffman
MSIII
MD/PhD

Naomi Huber
Allied Sciences

Holly Humphrey
MSI
Four-Year
Rosengarten Scholar

Ramon Jacobs
MSIV
One-Year

Juliet Klasing
MSI
MD/PhD

Peter Kranz
MSIII
Four-Year

Chad McCall
MSII
Merit

Dalton McLean
MSIII
Merit

David McSwain
MSIV
One-Year

Manoj Menon
MSIV
One-Year

Jason Merker
MSIII
MD/PhD

Daniel Oh
MSI
MD/PhD

Melissa Putman
MSII
One-Year

Gordon Reeves
MSII
One-Year

Michael Rosenthal
MSIII
MD/PhD

Jonathan Routh
MSIV
Four-Year

Rebecca Sands Stone
MSIV
One-Year

Carlie Sigel
MSIII
Four-Year

Rishi Syal
MSIII
Four-Year

Rebecca Walker
MSII
Four-Year

Sheneika Walker
MSIII
One-Year

Allyson Whyte
MSI
Four-Year
Cox Scholar

Sara Wood
MSII
Four-Year

William Wood
MSIII
One-Year

Loyalty Fund Campaign 2000-01

Thank you to all of the volunteers who served on campaign steering committees in 2000-01 (July1-June 30):

Area Campaigns

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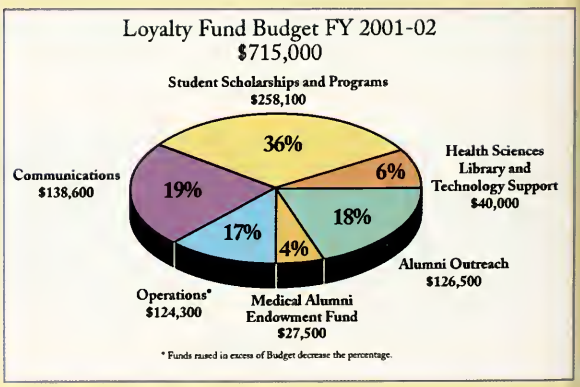

Report to Donors

Dear Medical School Alumni:

It is with great appreciation that I announce to you the annual Report to Donors for fiscal year 2000-01 (July-June). I am pleased to tell you that it was another record-setting year for alumni support at UNC School of Medicine.

Over 43 percent of medical alumni contributed a total of $ 3.3 million to benefit programs and services at the School of Medicine. Of this amount, $ 2.6 million was restricted to support, for example, much-needed professorships, fellowships and lectureships.

The remaining $706,000 was contributed by 38 percent of alumni to the Loyalty Fund, the unrestricted fund that provides support for important student, faculty and alumni programs. These numbers are important as corporations and foundations often look at the level of alumni participation when deciding whether to support the School. It would take an endowment of $14 million to generate an annual income of $700,000.

The Report that follows includes the names of all alumni who made contributions to any Medical Foundation account between July 1, 2000 and June 30, 2001. Names in bold type recognize alumni who contributed at the $1,000 level or above. Names in italics recognize alumni who gave $10,000 or more. Please call me at The Medical Foundation at (800) 962-2543 if you have a correction to this list. Every effort for accuracy has been made.

Continued alumni participation plays a critical role in helping to determine the quality of programs available at your alma mater. Thank you again for your generous support.

Sincerely,

Jane M. McNeer

Jane M. McNeer,
Assistant Dean and Vice President
The Medical Foundation of North Carolina, Inc.

P.S. As you may know, UNC is in an ambitious, University-wide $1.5 billion-plus comprehensive capital campaign — The Carolina First Campaign — which began July 1999 and ends June 2006. All gifts and pledges to the Medical School, including the Loyalty Fund and Medical Alumni Endowment Campaign, count toward this important fundraising effort.

Honor Roll of Alumni Donors

2000-01

$1,000-$9,999 donors are printed in bold.
$10,000 or more are printed in bold italics.

CLASS OF 1929
Number in Class: 2
Percent Donors: 50%
Vance T. Alexander, M.D., Davidson, NC

CLASS OF 1931
Number in Class: 5
Percent Donors: 20%
J. Allen Whitaker, M.D., Rocky Mount, NC

CLASS OF 1933
Number in Class: 1
Percent Donors: 100%
Arthur F. Toole, M.D., Talladega, AL

CLASS OF 1934
Number in Class: 3
Percent Donors: 33%
William B. Patterson, M.D., Wailuku, HI

CLASS OF 1935
Number in Class: 4
Percent Donors: 25%
Julien H. Meyer, M.D., Roanoke, VA

CLASS OF 1936
Number in Class: 7
Percent Donors: 14%
Annie L. Wilkerson, M.D., Raleigh, NC

CLASS OF 1937
Number in Class: 5
Percent Donors: 20%
W. Skellie Hunt, Jr., M.D., Wilmington, NC

CLASS OF 1938
Number in Class: 7
Percent Donors: 14%
Horace H. Hodges, M.D., Matthews, NC

CLASS OF 1939
Number in Class: 7
Percent Donors: 29%
Jesse B. Caldwell, Jr., M.D., Gastonia, NC
Henry T. Clark, Jr., M.D., Chapel Hill, NC

CLASS OF 1940
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Percent Donors: 35%
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Number in Class: 11
Percent Donors: 36%
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Robert M. Hall, M.D., Raleigh, NC
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Claude Lowry Pressly, M.D., Charlotte, NC

CLASS OF 1942
Number in Class: 21
Percent Donors: 43%
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R. B. Williams, Jr., M.D., Wilmington, NC

CLASS OF 1943
Number in Class: 42
Percent Donors: 21%
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William N. Hubbard, Jr., M.D., Kalamazoo, MI
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Alexander C. Mitchell, M.D., Onchiota, NY
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S. Malone Parham, M.D., Henderson, NC
Frank R. Reynolds, M.D., Wilmington, NC
Kenneth W. Wilkins, M.D., Goldsboro, NC

CLASS OF 1944
Number in Class: 21
Percent Donors: 67%
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J. Vincent Arey, M.D., Concord, NC
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Hilda H. Bailey, M.D., Salisbury, NC
Earl E. Correll, M.D., Kannapolis, NC
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J. Mitchell Sorrow, Jr., M.D., Chapel Hill, NC
Charles W. Tillett, M.D., Charlotte, NC

CLASS OF 1945
Number in Class: 24
Percent Donors: 54%
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Roger A. Smith III, M.D., San Bernardino, CA
Clifton F. West, Jr., M.D., Chestertown, MD

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Number in Class: 27
Percent Donors: 78%
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John E. Weyher, Jr., M.D., Wilmington, NC
Thomas E. Whitaker II, M.D., Greenville, SC

CLASS OF 1947

Number in Class: 14
Percent Donors: 21%
Thomas R. Newitt, M.D., Escondido, CA
Harry G. Walker, M.D., Statesville, NC
Sarah L. Warren, M.D., Chapel Hill, NC

CLASS OF 1948

Number in Class: 22
Percent Donors: 27%
James A. Ewart, M.D., Walnut Creek, CA
Tyndall P. Harris, M.D., Chapel Hill, NC
Louis T. Kermon, M.D., Raleigh, NC
Julius A. MacKie, Jr., M.D., Bryn Mawr, PA
Shirley L. Rivers, M.D., Tucson, AZ
Daniel T. Young, M.D., Chapel Hill, NC

CLASS OF 1949

Number in Class: 35
Percent Donors: 31%
J. Dewey Dorsett, Jr., M.D., Charlotte, NC
Christopher C. Fordham III, M.D., Chapel Hill, NC
F. Sidney Gardner, Jr., M.D., Fayetteville, NC
Frank H. Hamilton, Jr., M.D., Charlotte, NC
Odell C. Kimbrell, Jr., M.D., Raleigh, NC
Edward B. McKenzie, M.D., Statesville, NC
Edwin W. Monroe, M.D., Greenville, NC
Rose Pully, M.D., Kinston, NC
Jack D. Summerlin, M.D., Indianapolis, IN
G. Earl Trevathan, Jr., M.D., Greenville, NC
Maxine D. Wallace, M.D., Oakland, CA

CLASS OF 1950

Number in Class: 35
Percent Donors: 69%
Gertrude A. Bales, M.D., Rochester, NY
Frederick O. Bowman, Jr., M.D., Chapel Hill, NC
W. Grimes Byerly, Jr., M.D., Hickory, NC
Jack O. Carson, M.D., Grifton, NC
Elwood B. Coley, M.D., Lumberton, NC
John T. Dees, M.D., Bald Head Island, NC
Amzi J. Ellington, Jr., M.D., Burlington, NC
Mary B. Golby, M.D., Durham, NC
Buel K. Grow, Jr., M.D., Belle Meade, NJ
Joel B. Huneycutt, M.D., Lake Wylie, SC
George Johnson, Jr., M.D., Chapel Hill, NC
William S. Joyner, M.D., Durham, NC
John A. Kirkland, M.D., Wilson, NC
Dan A. Martin, M.D., Madisonville, KY
John L. McCain, M.D., Wilson, NC
Glenn D. Moak, M.D., Indianapolis, IN
James H. Peedin, Jr., M.D., Burgaw, NC
J. Olin Perritt, Jr., M.D., Wilmington, NC
John W. Sawyer, M.D., Wilmington, NC
Eugene B. Sharpe, M.D., Asheville, NC
Lewis S. Thorp, Jr., M.D., Rocky Mount, NC
Charles R. Vernon, M.D., Wrightsville, NC
John L. Watters, M.D., Raleigh, NC
John R. Wilkinson, Jr., M.D., Hickory, NC

CLASS OF 1951

Number in Class: 35
Percent Donors: 63%
Luther L. Anthony, Jr., M.D., Gastonia, NC
John S. Barlow, M.D., Concord, MA
Otha A. Barnhill, M.D., Elizabethtown, NC
Daniel F. Beals, M.D., Knoxville, TN
S. Bruce Berkeley, Jr., M.D., Goldsboro, NC
R. Jackson Blackley, M.D., Raleigh, NC
William B. Blythe, M.D., Chapel Hill, NC
Richard W. Borden, M.D., Beaufort, NC
D. Ernest Bulluck, Jr., M.D., Moorestown, NJ
Baxter H. Byerly, M.D., Tallahassee, FL
A. James Coppridge, M.D., Durham, NC
William A. Futch, M.D., Conyers, GA
R. Wharton Gaul, M.D., Murrells Inlet, SC
Matt C. Harper, Jr., M.D., Kinston, NC
Hal B. Hawkins, M.D., Wilkesboro, NC
John C. Herion, M.D., Chapel Hill, NC
Harold C. Lane, M.D., Rutherfordton, NC
Karl L. Lawing, M.D., Lincolnton, NC
Luther W. Oehlbeck, Jr., M.D., Labelle, FL
Charles C. Stamey, M.D., Winston-Salem, NC
Edward Y. C. Thorne, M.D., Wilson, NC
Jack W. Wilkerson, M.D., Greenville, NC

CLASS OF 1952

Number in Class: 6
Percent Donors: 17%
Charles H. Powell, M.D., Ormond Beach, FL

CLASS OF 1954

Number in Class: 31
Percent Donors: 52%
Leland S. Averett, Jr., M.D., High Point, NC
Paul H. Brigman, M.D., Trinity, NC
A. Joseph Diab, M.D. Raleigh, NC
Malcolm Fleishman, M.D., Fayetteville, NC
Charles B. Fulghum, Jr., M.D., Atlanta, GA
J. Franklin Graves, M.D., Edisto Island, SC
Sara L. Hoyt, M.D., Rome, GA
James C. Parke, Jr., M.D., Charlotte, NC
Cornelius T. Partrick, M.D., Washington, NC
Ely J. Perry, Jr., M.D., Kinston, NC
Allen Spencer, M.D., Salisbury, NC
Nat H. Swann, Jr., M.D., Signal Mountain, TN
William H. Weinel, Jr., M.D., Wilmington, NC
Edward S. Williams, Jr., M.D., Durham, NC
Stephen G. Wilson, Jr., M.D., Knoxville, TN
Virgil A. Wilson, M.D., Winston-Salem, NC

CLASS OF 1955

Number in Class: 49
Percent Donors: 59%
Julian S. Albergotti, Jr., M.D., Charlotte, NC
Ralph E. Brooks, Jr., M.D., High Point, NC
Griggs C. Dickson, M.D., Charlotte, NC
Charles F. Eddinger, M.D., Spencer, NC
John W. Foust, M.D., Charlotte, NC
J. Eugene Glenn, M.D., Jacksonville, FL
Robert L. Golby, M.D., Durham, NC
James W. Hayes III, M.D., Burlington, NC
Charles L. Herring, M.D., Kinston, NC
William D. Huffines, M.D., Chapel Hill, NC
Samuel G. Jenkins, Jr., M.D., Elizabeth City, NC
Robert C. Jordan, Jr., M.D., Sanford, NC
Samuel B. Joyner, M.D., Greensboro, NC
A. Smith Lineberger, Jr., M.D., Wilmington, NC
William L. London IV, M.D., Durham, NC
Lloyd C. McCaskill, M.D., Maxton, NC
Clarence R. McLain, Jr., M.D., Cincinnati, OH
Andrew C. Miller III, M.D., Gastonia, NC
J. Thaddeus Monroe, Jr., M.D., Chapel Hill, NC
Thomas P. Moore, M.D., Jacksonville, NC
G. Irvin Richardson, M.D., Reidsville, NC
Oliver F. Roddey, Jr., M.D., Charlotte, NC
Robert T. Savage, M.D., Winston-Salem, NC
Palmer F. Shelburne, M.D., Greensboro, NC
Henry L. Stephenson, Jr., M.D., Washington, NC
Robert L. Summerlin, Jr., M.D., Dublin, NC
G. Reginald Tucker, Jr., M.D., Emerald Isle, NC
William J. Waddell, M.D., Prospect, KY
W. Wallace White, M.D., Cincinnati, OH

CLASS OF 1956

Number in Class: 49
Percent Donors: 84%
John R. Baggett III, M.D., New Bern, NC
Richard A. Boyd, M.D., Statesville, NC
Wade M. Brannan, M.D., Port Arthur, TX
Thomas E. Castelloe, M.D., Raleigh, NC
Lee A. Clark, Jr., M.D., Wilson, NC
John W. Deyton, Jr., M.D., Jacksonville, NC
Margareta J. Duncan, M.D., Dunn, NC
Stacy Allen Duncan, Jr., M.D., Dunn, NC
Laurence E. Earley, M.D., Gig Harbor, WA
William E. Easterling, Jr., M.D., Chapel Hill, NC
John T. Evans, M.D., Chattanooga, TN
Charles W. Fowler III, M.D., Orlando, FL
Alexander F. Goley, M.D., Burlington, NC
Francis W. Green, M.D., Albemarle, NC
William R. Harris, M.D., Hickory, NC
John L. Hazlehurst III, M.D., Asheville, NC
Robert P. Holmes III, M.D., New Bern, NC
Dean C. Jones, Jr., M.D., Jefferson, NC
H. Neill Lee, Jr., M.D., Lumberton, NC
Clyde F. Lloyd, M.D., Roanoke, VA
Otis M. Lowry, M.D., Spring Hope, NC

Milton B. Mann, M.D., Jacksonville, FL
Marvin M. McCall III, M.D., Monroe, NC
William W. McLendon, M.D., Chapel Hill, NC
Robert L. Murray, M.D., Roanoke, VA
John W. Ormand, Jr., M.D., Wilmington, NC
Clifton G. Payne, M.D., Reidsville, NC
Thomas W. Payne, M.D., Newport News, VA
Francis D. Pepper, Jr., M.D., Winston-Salem, NC
Carey J. Perry, M.D., Louisburg, NC
William R. Purcell, M.D., Laurinburg, NC
James F. Richards, Jr., M.D., Orlando, FL
Joseph I. Riddle, M.D., Morganton, NC
W. R. Stafford, Jr., M.D., Greensboro, NC
Thomas C. Suther, Jr., M.D., McCain, NC
John W. Vassey, M.D., Raleigh, NC
M. Mickey Vitols, M.D., Seattle, WA
Garland E. Wampler, M.D., Burnsville, NC
William B. Wood, M.D., Chapel Hill, NC
Leonard S. Woodall, M.D., P.A. Smithfield, NC
Dewey H. Yarley, M.D., Durham, NC

CLASS OF 1957

Number in Class: 50
Percent Donors: 46%
H. John Bradley, Jr., M.D., Greensboro, NC
James. R. Clapp, M.D., Durham, NC
Robert S. Cline, M.D., Sanford, NC
Luther H. Clontz, M.D., Morganton, NC
William P. Cornell, M.D., Phoenix, AZ
John K. Farrington, M.D., High Point, NC
Eric L. Fearrington, M.D., Greenville, NC
J. Grayson Hall, M.D., Dobson, NC
Bennett A. Hayes, Jr., M.D., Fayetteville, NC
Jack B. Hobson, M.D., Charlotte, NC
J. Paul Hurst, Jr., M.D., Rydal, PA
George L. Irvin III, M.D., Coral Gables, FL
Richard V. Liles, Jr., M.D., Albemarle, NC
H. Maxwell Morrison, Jr., M.D., Southern Pines, NC
Harvey A. Page, M.D., Pikeville, KY
Thaddeus H. Pope, Jr., M.D., Indianapolis, IN
Raeford T. Pugh, M.D., Washington, NC
Nathaniel L. Sparrow, M.D., Raleigh, NC
James H. M. Thorp, M.D., Rocky Mount, NC
Gerald M. Wagger, M.D., Palo Alto, CA
Earl P. Welch, Jr., M.D., Winston-Salem, NC
Robert T. Whitlock, M.D., Easton, MD
Dr. Benson R. and Mrs. Lucinda Holderness Wilcox, Chapel Hill, NC

CLASS OF 1958

Number in Class: 47
Percent Donors: 38%
Clarence A. Bailey, Jr., M.D., Durham, NC
John I. Brooks, Jr., M.D., Tarboro, NC
David B. Crosland, M.D., Mt. Pleasant, NC
James R. Edwards, M.D., Raleigh, NC
George E. Ennis, M.D., Hickory, NC
Nancy P. Fawcett, M.D., Pembroke Pines, FL
Thomas M. Haizlip, M.D., Raleigh, NC
John S. Howie, M.D., Raleigh, NC
Dan E. Johnson, M.D., Concord, NC
Walter N. Long, Jr., M.D., Taylorsville, NC
John A. McGee, Jr., M.D., Charlotte, NC
Luther S. Nelson, M.D., Amarillo, TX
T. Lane Ormand, M.D., Monroe, NC
J. Richard Patterson, M.D., Danville, VA
Charles W. Phillips, Jr., M.D., Gibsonville, NC
Charles W. Stout, M.D., Asheboro, NC
B. Everett Thompson, Jr., M.D., Cary, NC
Paul M. Weeks, M.D., Chapel Hill, NC

CLASS OF 1959

Number in Class: 41
Percent Donors: 46%
Doris B. Braxton, M.D., Burlington, NC
Robert C. Brown, M.D., Chapel Hill, NC
Daniel Whitaker Davis, M.D., Wadesboro, NC
A. Eugene Douglas, Jr., M.D., Bald Head Island, NC
Otis N. Fisher, Jr., M.D., Greensboro, NC
Joel S. Goodwin, M.D., Salisbury, NC
Robert L. Green, Sr., M.D., Winston-Salem, NC
O. James Hart, Jr., M.D., Mocksville, NC
Morris A. Jones, Jr., M.D., Chapel Hill, NC
David L. Kelly, Jr., M.D., Winston-Salem, NC
Edward L. Mitchell, M.D., Prospect, KY
A. Sherman Morris, Jr., M.D., Asheville, NC
W. Russell Rowland, M.D., Greer, SC
Julian W. Selig, Jr., M.D., Elizabeth City, NC
Martha K. Sharpless, M.D., Greensboro, NC
Shahane R. Taylor, Jr., M.D., Greensboro, NC
Charles E. Trado, Jr., M.D., Hickory, NC
C. Carl Warren, Jr., M.D., Charlotte, NC
R. Lee West, M.D., Greenville, NC

CLASS OF 1960

Number in Class: 60
Percent Donors: 43%
William B. Abernethy, Jr., M.D., Gastonia, NC
Charles P. Eldridge, Jr., M.D., Houston, TX
Gerald W. Fernald, M.D., Chapel Hill, NC
Charles E. Fitzgerald, Jr., M.D., Maitland, FL
J. Thomas Fox, Jr., M.D., Valle Crucis, NC
David B. Garmise, M.D., Bluffton, SC
James R. Harper, Sr., M.D., Durham, NC
Falls L. Harris, M.D., Greenville, SC
G. Wyckliffe Hoffler, M.D., Titusville, FL
L. Gordon Kirschner, M.D., Washington, DC
E. Carwile LeRoy, M.D., Charleston, SC
James M. Marlowe, M.D., High Point, NC
J. Gray McAllister III, M.D., Chapel Hill, NC
K. Franklin McCain, M.D., Winston-Salem, NC
Cecil H. Neville, Jr., M.D., Pinehurst, NC
Duncan S. Owen, Jr., M.D., Richmond, VA
Robert B. Payne, M.D., Mooresville, NC
Jerry M. Petty, M.D., Charlotte, NC
Jean R. Poirier, M.D., Frederick, MD
Elizabeth V. Raft, M.D., Durham, NC
G. Thomas Strickland, Jr., M.D., Baltimore, MD
Joseph E. Swanton, M.D., Roanoke Rapids, NC
John C. Tayloe, M.D., New Bern, NC
H. Mac Vandiviere, M.D, Lancaster, KY
P. Burt Veasey, M.D., Sarasota, FL
John A. Young, M.D., Charlotte, NC

CLASS OF 1961

Number in Class: 49
Percent Donors: 76%
E. Stanley Avery, Jr., M.D., Norfolk, VA
Robert M. Boerner, M.D., Asheville, NC
Charles O. Boyette, Sr., M.D., Belhaven, NC
R. Carl Britt, M.D., Chapel Hill, NC
William L. Brown, M.D., Roanoke Rapids, NC
H. David Bruton, M.D., Carthage, NC
John C. Council, Jr., M.D., Charlotte, NC
Robert K. Creighton, Jr., M.D., M.P.H., Wilmington, NC
Cosmo A. Difazio, M.D., Ph.D., Charlottesville, VA
John W. Garden, M.D., Lexington, KY
William S. Gibson, Jr., M.D., Riverside, PA
John C. Graham, Jr., M.D., Kitty Hawk, NC
Claud M. Grigg, M.D., Charlotte, NC
L. Morgan Hale, M.D., Chapel Hill, NC
Richard W. Hudson, M.D., Bayboro, NC
Richard D. Jordan, M.D., Salisbury, NC
William H. Kouri, M.D., Isle of Palms, SC
Lloyd D. Lohr, M.D., Lexington, NC
Zell A. McGee, M.D., Salt Lake City, UT
W. Stacy Miller, M.D., Raleigh, NC
William W. Morgan, Jr., M.D., Reno, NV
A. Ray Newsome, M.D., Winston-Salem, NC
C. Rex O'Briant, M.D., Gilbert, AZ
William L. Owens, M.D., Clinton, NC
Louie L. Patseavouras, M.D., Greensboro, NC
Cecil H. Rand, Jr., M.D., Greenville, NC
Leonard E. Reaves III, M.D., Merry Hill, NC
Bobby A. Richardson, M.D., Ocala, FL
James H. Robinson, M.D., Wilmington, NC
W. Ray Samuels, M.D., Kiawah Island, NC
Edward A. Sharpless, M.D., Greensboro, NC
W. Ferrell Shuford, Jr., M.D., Wilmington, NC
Joshua Tayloe, M.D., Washington, NC
Stephen J. Trachtenberg, M.D., Huntington Station, NY
Zebulon Weaver III, M.D., Asheville, NC
Donn A. Wells, M.D., Sea Ranch Lakes, FL
William H. White, Jr., M.D., Sanford, NC

CLASS OF 1962

Number in Class: 51
Percent Donors: 47%
Karl L. Barkley, M.D., Greensboro, NC
Oscar H. Bolch, Jr., M.D., San Diego, CA
Joseph H. Callicott, Jr., M.D., Lynchburg, VA
Lawrence M. Cutchin, M.D., Tarboro, NC
Jerry J. Eller, M.D., Livingston, AL
A. Ray Evans, M.D., Greenville, NC
Thomas W. Gable, M.D., Atlanta, GA
Marion W. Griffin, M.D., Asheboro, NC
H. Gerard Hartzog III, M.D., Raleigh, NC
Dr. and Mrs. Ray M. Hayworth, Knoxville, TN
Charles M. Hicks, M.D., Wilmington, NC
Arthur S. Lynn, Jr., M.D., Conover, NC
J. Newton MacCormack, M.D., Raleigh, NC
John L. Monroe, M.D., West End, NC
Kenny J. Morris, M.D., Wilmington, NC
William A. Nebel, M.D., Chapel Hill, NC
Carl S. Phipps, M.D., Winston-Salem, NC
Alton A. Reeder, M.D., High Point, NC
J. Flint Rhodes, M.D., Raleigh, NC
Lambros C. Rigas, M.D., Rome, GA
Fuller A. Shuford, M.D., Asheville, NC

Roy V. Varner, M.D., Houston, TX
David T. Watson, M.D., Atlanta, GA
Abner C. Withers, M.D., Salisbury, NC

CLASS OF 1963

Number in Class: 50
Percent Donors: 40%
William P. Algary, M.D., Greenville, SC
Dr. and Mrs. Neil C. Bender, New Bern, NC
I. Kelman Cohen, M.D., Richmond, VA
Robert J. Cowan, M.D., Winston-Salem, NC
William B. Deal, M.D., Birmingham, AL
J. Michael Gallagher, M.D., Seattle, WA
J. Phillip Goodson, M.D., Raleigh, NC
Ira M. Hardy II, M.D., Greenville, NC
William O. Jolly III, M.D., Albemarle, NC
Charles I. Loftin III, M.D., Roanoke, VA
J. Marshall McLean, M.D., Peoria, IL
James L. Parker, M.D., Hickory, NC
Richard L. Pressley, M.D., Advance, NC
Charles J. Sawyer III, M.D., Ahoskie, NC
Richard W. Shermer, M.D., Chapel Hill, NC
David W. Sillmon, M.D., Greensboro, NC
Jerry A. Smith, M.D., Memphis, TN
William E. Thornton, M.D., Fair Oaks Ranch, TX
Roy A. Weaver, M.D., Fayetteville, NC
David R. Williams, Sr., M.D., Thomasville, NC

CLASS OF 1964

Number in Class: 53
Percent Donors: 28%
J. Nichols Beard, M.D., Charlotte, NC
Harry L. Broome, M.D., Alpharetta, GA
John R. Cella, M.D., Raleigh, NC
James F. Earnhardt, M.D., Winston-Salem, NC
Clyde M. Gaffney III, M.D., Greer, SC
G. Patrick Henderson, Jr., M.D., Southern Pines, NC
D. Charles Hunsinger, M.D., Salter Path, NC
E. Woodrow Hunt, Jr., M.D., La Jolla, CA
W. Kirby Kilpatrick, Jr, M.D., Pinehurst, NC
Noel B. McDevitt, M.D., Southern Pines, NC
Artus M. Moser, Jr., M.D., Swannanoa, NC
Robert J. Pierce, Jr., M.D., Hickory, NC
Marshall E. Redding, M.D., Long Beach, CA
James W. Rose, Jr., M.D., Madison, WI
Robin N. Wooten, Jr., M.D., Lakeland, FL

CLASS OF 1965

Number in Class: 56
Percent Donors: 29%
L. Bernard Branch, M.D., Lexington, KY
Daniel E. Brown, M.D., Raleigh, NC
Hal F. Collier, M.D., Flowery Branch, GA
Takey Crist, M.D., Jacksonville, NC
Robert L. Grubb, Jr., M.D., Glendale, MO
Howard Holderness, Jr., M.D., Greensboro, NC
Joe P. Hurt, M.D., Ph.D., Sylva, NC
Robert T. Kindley, M.D., Mary Esther, FL
Richard E. Lassiter, M.D., Chapel Hill, NC
Gordon B. LeGrand, M.D., Raleigh, NC
Sue E. Massey, M.D., Scotts Valley, CA
Donald D. McNeill, Jr., M.D., Lenoir, NC
Thomas L. Presson, M.D., Greensboro, NC
William F. Sayers, M.D., Winston-Salem, NC
Evin H. Sides III, M.D., Raleigh, NC
Williamson B. Strum, M.D., La Jolla, CA

CLASS OF 1966

Number in Class: 58
Percent Donors: 76%
J. Curtis Abell, M.D., Statesville, NC
Robert P. Barringer, M.D., Gastonia, NC
Robert H. Bilbro, M.D., Raleigh, NC
William H. Bowers, M.D., Richmond, VA
Paul L. Burroughs, Jr., M.D., Raleigh, NC
Timothy E. Cloninger, M.D., Charlotte, NC
George W. Cox, M.D., Atlanta, GA
John R. Crawford III, M.D., Salisbury, NC
J. Bernard Credle, M.D., Beaufort SC
William M. Crutchfield, M.D., Elizabeth City, NC
Philip C. Deaton, M.D., Greensboro, NC
Wesley C. Fowler, Jr., M.D., Chapel Hill, NC
Edgar C. Garrabrant II, M.D., Raleigh, NC
Robert C. Gibson III, M.D., Portland, OR
Cyrus L. Gray III, M.D., Hiawassee, GA
Carol H. Hackett, M.D., Bellview, WA
Lawrence D. Henry, M.D., Jefferson City, MO
Howard T. Hinshaw, M.D., Charlotte, NC
N. Neil Howell, M.D., Charlotte, NC
Elizabeth S. Hoyt, M.D., Cary, NC
William C. Hubbard, M.D., Raleigh, NC
Stanleigh E. Jenkins, Jr., M.D., Ahoskie, NC
Sidney C. Kress, M.D., Staten Island, NY
Thomas J. Koontz, M.D., Winston-Salem, NC
Hugh A. McAllister, Jr., M.D., Houston, TX
Edgar M. McGee, M.D., Lexington KY
Peter L. Morris, M.D., Santa Barbara, CA
Duncan Morton, Jr., M.D., Charlotte, NC
Hugh G. Murray, Jr., M.D., Atlanta, GA
R. Kenneth Pons, M.D., Medford, OR
Don W. Printz, M.D., Stone Mountain, GA
Surry P. Roberts, M.D., Raleigh, NC
Charles K. Scott, M.D., Haw River, NC
Robert E. Sevier, M.D., Greensboro, NC
J. Lewis Sigmon, Jr., M.D., Davidson, NC
Robert G. Simmons, M.D., Pittsboro, NC
H. Lee Smyre, M.D., Greer, SC
E. Walker Stevens, Jr., M.D., Greensboro, NC
Donald A. Thomas, M.D., Seneca, SC
Henry F. Thomas, Jr., M.D., Gastonia, NC
W. Beverly Tucker III, M.D., Henderson, NC
W. Hunter Vaughan, M.D., Steubenville, OH
James H. Whicker, M.D., Raleigh, NC
James A. Yount, M.D., Charlotte, NC

CLASS OF 1967

Number in Class: 64
Percent Donors: 45%
Phillip G. Arnold, M.D., Rochester, MN
F. Walton Avery, M.D., Chapel Hill, NC
Gerald W. Blake, M.D., Raleigh, NC
Thomas W. Bundy, M.D., Chambersburg, PA
Vartan A. Davidian, Jr., M.D., Raleigh, NC
C. Allan Eure, M.D., Raleigh, NC
R. Donald Garrison, M.D., Jacksonville, FL
Harvey J. Hamrick, M.D., Chapel Hill, NC
E. Franklin Hart, Jr., M.D., Morganton, NC
James D. Hundley, M.D., Wilmington, NC
Linda H. Jackson, M.D., Arden, NC
William H. Jarman, Jr., M.D., Gastonia, NC
Scott G. Kleiman, M.D., Marietta, GA
Hugh T. Lefler, Jr., M.D., Fort Worth, TX
Philip R. Littleton, M.D., Burke, VA
Robert W. Madry, Jr., M.D., Corpus Christi, TX
W. Jason McDaniel, Jr., M.D., Raleigh, NC
Joseph T. McLamb, M.D., Goldsboro, NC
Harold B. Owens, M.D., Danville, VA
Gerald Pelletier, Jr., M.D., New Bern, NC
Bruce A. Phillips, Jr., M.D., Elizabethtown, NC
Albert L. Roper II, M.D., Norfolk, VA
Douglas M. Russell, M.D., Goldsboro, NC
Walter R. Sabiston, M.D., Kinston, NC
James H. Spruill, M.D., Jackson, TN
Henry C. Thomason, Jr., M.D., Gastonia, NC
M. Dennis Wachs, M.D., Bedford, NH
Benjamin K. Ward, Jr., M.D., Florence, SC
Barry M. Welborne, M.D., Charlotte, NC

CLASS OF 1968

Number in Class: 59
Percent Donors: 37%
Joseph R. Archie, Jr., M.D., Raleigh, NC
George W. Bensch, M.D., Stockton, CA
I. Alan Craig, M.D., Skyland, NC
Alan Davidson III, M.D., Greensboro, NC
Terry D. Golden, M.D., Atlanta, GA
Theodora L. Gongaware, M.D., Savannah, GA
Joseph W. Griffin, Jr., M.D., Augusta, GA
William O. Kearse, Jr., M.D., Lubbock, TX
John L. Kirkland III, M.D., Houston, TX
Edward W. Kouri, M.D., Charlotte, NC
Jerold E. Lancourt, M.D., Dallas, TX
Patrick T. Malone, M.D., Atlanta, GA
Rutherford B. Polhill, Jr., M.D., Birmingham, AL
David J. Reese II, M.D., Alexandria, VA
David M. Rubin, M.D., Greensboro, NC
Carole W. Samuelson, M.D., Birmingham, AL
E. Franklin Shavender, M.D., Durham, NC
George S. Stretcher, M.D., Spartanburg, SC
Jack G. Wall, M.D., Graham, NC
J. Allen Whitaker III, M.D., Wilson, NC
Roberta G. Williams, M.D., La Canada, CA
Jerry C. Woodard, M.D., Wilson, NC

CLASS OF 1969

Number in Class: 62
Percent Donors: 44%
H. Wallace Baird, M.D., Greensboro, NC
J. Hugh Bryan, M.D., Fayetteville, NC
W. Woodrow Burns, Jr., M.D., Chapel Hill, NC
Don C. Chaplin, M.D., Burlington, NC
Bertram W. Coffer, M.D., Raleigh, NC
R. Samuel Cromartie III, M.D., Ormond Beach, FL
Eugene B. Ferris, M.D., Vicksburg, MS
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Number in Class: 113
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CLASS OF 1978

Number in Class: 125
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Number in Class: 123
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CLASS OF 1980

Number in Class: 151
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Number in Class: 133
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Number in Class: 134
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from the president

By now, most of you have completed your vacations, have survived the heat of summer, the kids are back in school, and it's time to settle into our usual routines. For myself, there is a different sensation that has transpired because of more involvement with the Medical Alumni Association. There is a certain renewal of spirit that occurs when you see the enthusiasm and excitement of a new class of medical students begin their journey that we have all experienced. The alumni reunion committees are being formed, and the work begins for a new year.

For the majority of our alumni, this feeling of renewed commitment to the School of Medicine occurs only once in every five years. We are all very busy and wrapped up in our own worlds and do not have the annual stimulus of change that occurs at our alma mater. Does it have to be this way? Certainly not. Just because we are not on the actual scene of excitement that occurs in Chapel Hill does not mean we cannot renew our commitments to the School of Medicine. Just because our classes do not reunite every year has nothing to do with us examining our responsibilities for supporting the institution that gave us our start.

In my previous letter, I mentioned the apathy that one sees in our profession. It is easy to justify or write off this attitude when we continually are bombarded by a host of acronymic organizations — HCFA, HMO, PPO, for example — that affect our professional lives. Instead of giving in to these pressures, it is much more satisfying to renew our efforts and commitments to those things most dear to us.

All of these rah-rah reminders of renewed spirit can mean that each of us will make a commitment to become involved in alumni activities. What can we do to learn more about what goes on at the School of Medicine? How can we strengthen our ties and lend our support; become involved in committees and campaigns and attend events and receptions that can rejuvenate our lives? Such interest not only translates into a new vision for our school, but also can enrich and improve the life of our community.

Before time slips away — and it has a habit of doing that — take this opportunity to close your eyes and imagine you have been transposed to the past ... 10, 20, even 50 years ago. Remember the excitement of that new beginning. Think of what this has meant to you and take stock of what you can do to make things better — not just every five years at a reunion, but each day of our lives

I look forward to seeing each of you at the next reunion or Dean's Reception.

Thomas J. Koontz, MD, '66

CME/Alumni Calendar

Nov. 2-3 – Chapel Hill
11th Annual Vascular Surgery Symposium

Nov. 2-4 – Chapel Hill
UNC RSRC Clinical Instructor Seminar Series 2001 - Part II

Nov. 13 – Chapel Hill
Advances in Pediatric Pain Management

Nov. 16-18 – Chapel Hill
Psychiatry Across the Ages: 6th Annual Update in Psychiatry and the 18th Annual George C. Ham Symposium

Jan. 17-18 – Chapel Hill
Challenges in Geriatric Practice: 13th Annual Conference

March 7, 12, 19, 26, April 2 – Chapel Hill
Mini Medical School Lecture Series 2002

April 4-5 – Charleston, S.C.
Bridging Research and Practice in Urinary Incontinence

April 5-6 – Chapel Hill
Symposium on Tissue Factor and Factor VII

April 10-12 – Chapel Hill
26th Annual Internal Medicine Conference
The Friday Center

April 19-21 – Chapel Hill
Spring Medical Alumni Weekend

For more information, go to
www.med.unc.edu/alumni and
www.med.unc.edu/cme

Estate Planning Notice

Many individuals would like to make a major gift to the UNC medical center, but cannot commit current assets for such a purpose. Through a will, however, anyone can make a more significant gift than they might ever have thought possible by designating a specific sum, a percentage, or the residue of their estate for the benefit of the medical center.

To provide a bequest, simply include a paragraph in your will naming The Medical Foundation of North Carolina, Inc. as a beneficiary. For example:

"I give, devise and bequeath (the sum of $_____) or (_____ % of my estate) or (the residue of my estate) to The Medical Foundation of North Carolina, Inc., a 501(C)(3) created to maintain funds for the UNC medical center with principal offices located at 880 Airport Road, Chapel Hill, North Carolina."

This language creates an unrestricted bequest for use by the medical center when and where the need is greatest, or you may specify that your gift be used for a particular purpose.

For further information on bequests, contact Jane McNeer at (919) 966-1201, (800) 962-2543, or jmcneer@email.unc.edu.

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